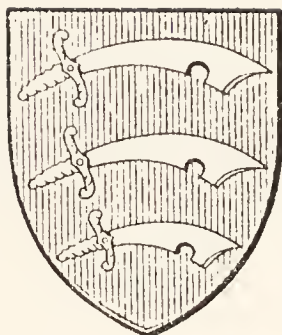


LXII.
1951



ADMINISTRATIVE COUNTY OF ESSEX

REPORT
OF THE
Medical Officer of Health
FOR THE YEAR
1951

H. KENNETH COWAN, M.D., D.P.H.
COUNTY MEDICAL OFFICER OF HEALTH

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HEALTH COMMITTEE

31st December, 1951.

Established as required by the National Health Service Act, 1946—
Chairman and Vice-Chairman of the Council (*ex-officio*), 34 other members
of the Council and 18 other persons.

Chairman—K. E. B. GLENNY

Vice-Chairman—P. PORTER

Acres, H. G.	Freeman, J. H., J.P.
*Ashton, Hubert, <i>M.C.</i> , <i>M.P.</i>	Herridge, W. H.
Ball, Mrs. M.	Hillyer, R. A. N.
Barratt, A.	Hollis, Mrs. E. F. M.
Berry, A. C.	Milburn, Mrs. E. F.
Blackmore, C. E. S.	Oxley, O. L.
Bredo, Mrs. M.	Plumb, J. S.
Brooks, A., <i>O.B.E.</i> , J.P.	Riley, Q. T. P. M.
Burrell, Mrs. A. M. M.	Saywood, Mrs. E. C.
Cooper, Mrs. C. A.	Smith, E. W.
Cottis, P. G., J.P.	Smith, F. D., J.P.
Cullen, F.	Stonebank, K.
Custerson, Mrs. C., J.P.	Tilbury, G. S., J.P.
Cuthbe, K.	Vaizey, Brigadier J. T.
Dovey, F. J. H.	de Horne
*Foster, F. S., <i>C.B.E.</i> , J.P.	Wade, W. J.
Waller, Major A. J. R., J.P.	

(2 vacancies)

Nominated Members :

Mrs. F. M. Cottee, J.P., 21, Castle Road, Rayleigh, Essex.
 Capt. G. E. Kemball, Keelars Tye, Elmstead, Essex.
 G. A. Malyon, Ellerdene, Rickstones Road, Witham, Essex.
 Mrs. J. H. Engwell, 138, Ripple Road, Barking, Essex.
 Mrs. A. E. Prendergast, J.P., 53, Western Avenue, Dagenham, Essex.
 G. S. Flack, J.P., 19, Carnarvon Road, Leyton, London, E.10.
 The Dowager Lady Rayleigh, *O.B.E.*, Aldenham Park, Bridgnorth, Salop.
 Mrs. J. Swire, Hubbards Hall, Harlow, Essex.
 Miss E. M. Western, 87, New London Road, Chelmsford, Essex.
 Lt.-Col. C. L. Wilson, *M.C.*, 46, Park Road, Chelmsford, Essex.
 H. E. Bates, 40, Birch Avenue, Dovercourt, Essex.
 Dr. J. D. Wells, *O.B.E.*, Billericay, Essex.
 Lt.-Cdr. H. Denton, R.N. (Retd.), *O.B.E.*, J.P., Roydene, Main Road,
 Dovercourt, Essex.
 Mrs. M. L. Watts, 26, Stonehall Avenue, Ilford, Essex.
 J. W. R. Nation, 36, Pole Hill Road, Chingford, London, E.4.
 Mrs. M. Clark-Lewis, 9, Junction Road, Romford, Essex.
 The Lady C. McEntee, J.P., 57, Hillcrest Road, Walthamstow, London, E.17.
 Mrs. R. J. Reynolds, Jersey House, Church Road, Harold Wood, Essex.

**Ex-officio* member.

STAFF OF HEALTH DEPARTMENT

31st December, 1951

1. CENTRAL OFFICE

County Medical Officer of Health :

H. Kenneth Cowan, M.D., D.P.H.

Deputy County Medical Officer of Health :

G. G. Stewart, M.R.C.S., L.R.C.P., D.P.H.

Senior Medical Officers :

J. L. Miller Wood, V.R.D., M.R.C.S., L.R.C.P., D.P.H., M.M.S.A. (Child Health).

Christina Grant, M.B., Ch.B., D.P.H. (Preventive Medicine).

Hilda Menzies, M.D., Ch.B., D.P.H. (Midwifery and Home Nursing).

H. J. Griffiths, M.R.C.S., L.R.C.P., D.P.H. (Mental Health). (Commenced 24-9-51)

Medical Officer for Medical Certification Duties :

Lilian Bates, M.D., D.P.H. (Paris).

Senior Dental Officer :

*S. K. Donaldson, L.D.S., R.F.P.S.

Superintendent Health Visitor :

*Miss E. K. Trillwood, S.R.N., S.C.M., Q.N., H.V.Cert.

Non-Medical Supervisor of Midwives :

*Miss E. Sandbach, S.R.N., S.C.M., Q.N., H.V.Cert.

Day Nursery Supervisor :

*Miss D. V. E. Neale, S.R.N., S.C.M.

Tutor to the Health Visitor Students :

Miss I. M. Lovedee, S.R.N., H.V.Cert., H.V.Tutor Cert.

County Domestic Help Organiser :

Miss G. H. Jenkins (Commenced 19-2-51).

County Health Inspector :

F. A. Irving, B.Sc. (Est. Man.), D.P.A. (Lond.), M.R.San.I.

County Ambulance Officer :

S. E. J. Hart, M.I.R.T.E., A.M.I.B.E.

*Part-time

Supervising Duly Authorised Officer :

A. L. Barton.

Statistician :

W. Leak, B.A.

Health Education Organiser :

W. Penn.

Senior Lay Administrative Assistant :

S. G. Clarke.

Chief Clerk :

J. G. Cox.

2. CENTRALLY ADMINISTERED SERVICES**Ambulance Service :**

Supervisors	..	..	..	..	..	..	11
Head Drivers	..	..	..	..	..	..	17
Driver Attendants (Male)	..	..	..	..	..	379	} 395
Driver Attendants (Female)	..	..	..	..	..	16	
Attendants (Male)	..	..	..	..	..	10	} 15
Attendants (Female)	..	..	..	..	..	5	

Mental Health Service :

Duly Authorised Officers	..	..	..	..	..	29
Occupation Centre Supervisors	..	..	..	..	..	8
Occupation Centre Assistant Supervisors	..	..	..	..	..	5
Occupation Centre Assistants	..	..	..	..	..	18

Training Homes :

Superintendents	..	..	..	..	..	2
Other Nursing Staff	..	..	..	..	..	80*
Part II Pupils	..	..	..	..	..	27
Queen's Candidates	..	..	..	..	..	16

*Includes 30 part-time employees.

3. AREA STAFFS**Area Medical Officers :**

J. D. Kershaw, M.D., B.S., D.P.H. (North-East Essex) (Appointment confirmed 8-3-51, Seconded to United Nations Health Organisation from 20-5-51).

J. Mervyn Thomas, M.D., B.Ch., D.P.H. (Mid-Essex) (Appointment confirmed 26-2-51).

W. J. Moffat, M.B., Ch.B., D.P.H. (South-East Essex).

W. T. G. Boul, M.B.E., M.D., Ch.B., D.P.H. (South Essex).

F. G. Brown, M.B., B.Ch., B.A.O., D.P.H. (Forest).

Acting Area Medical Officers :

- J. B. Samson, M.D., Ch.B., D.P.H. (Romford).
 C. L. Williams, M.R.C.S., L.R.C.P., D.P.H. (Barking).
 C. Herington, M.D., B.S., D.P.H. (Dagenham).
 I. Gordon, M.D., Ch.B., M.R.C.P., D.P.H. (Ilford).
 A. W. Forrest, M.A., M.D., Ch.B., D.P.H. (Leyton).
 A. T. W. Powell, M.C., M.B., B.S., D.P.H. (Walthamstow).
 W. H. Alderton, M.C., M.R.C.S., L.R.C.P., D.P.H. (North-East from 20-5-51 during absence of Dr. J. D. Kershaw).

Assistant County Medical Officers :*North-East Essex :*

- *Eleanor M. Singer, M.Sc., M.R.C.S., L.R.C.P., D.C.H.
 *Ann B. Clark, M.R.C.S., L.R.C.P.
 Sylvia I. E. McMillan, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.
 *F. L. Groarke, M.B., B.Ch., C.P.H., D.C.H., M.M.S.A.
 *J. R. Hetherington, L.R.C.P., L.R.C.S., L.R.F.P.S., D.P.H.
 *J. S. Ranson, M.R.C.S., L.R.C.P., D.P.H.
 *E. A. Hargreaves, M.R.C.S., L.R.C.P., D.P.H.
 *Mary D. Rankine, M.B., Ch.B., D.P.H., R.C.P.S., M.M.S.A.

Mid-Essex :

- *A. P. Kalra, M.B., B.S., M.R.C.S., L.R.C.P., D.C.H., C.P.H.
 *Irene M. D. F. C. Hastilow, M.B., Ch.B., D.P.H., M.R.C.S., L.R.C.P., D.Obst., R.C.O.G.
 Winifred Coppard, M.R.C.S., L.R.C.P.
 Margaret Turner, M.R.C.S., L.R.C.P.
 Mary T. Ryan, M.B., B.Ch., B.A.O., D.C.H., C.P.H. (resigned 31-12-51).
 Joyce W. Brown, M.B., Ch.B., D.P.H.
 Mabel A. Wyatt, M.D., B.S., L.R.C.P., M.R.C.S.
 A. R. Whitman, B.A., M.B., Ch.B.

South-East Essex :

- *N. S. R. Lorraine, F.R.S., M.D., Ch.B., D.P.H.
 *P. X. O'Dwyer, M.B., B.Ch., B.A.O., D.P.H.
 J. C. T. Fiddes, M.B., Ch.B.
 Jean Buchanan, M.B., Ch.B.
 J. Reach, M.D. (Prague).
 T. H. J. Hargreaves, M.R.C.S., L.R.C.P.

South Essex :

- *J. Gorman, M.B., D.P.H.
 *B. F. Beatson, M.R.C.S., L.R.C.P., D.T.M. & H., D.P.H.
 Linde Ewald-Davidson, M.D., B.Ch., D.P.H.
 Elizabeth Hargreaves, M.B., Ch.B., D.P.H.
 R. G. Meyer, M.B., B.Ch., B.A.O., D.P.H.

*Part-time

J. D. Murray, M.D., Ch.B. (resigned 31-12-51).
 Anielia A. Szweide, M.B., Ch.B.
 Doris E. C. Walker, M.B., B.S., M.R.C.S., L.R.C.P., D.A.
 Mair E. Williams, M.R.C.S., L.R.C.P.
 R. D. Pearce, M.R.C.S., L.R.C.P.
 A. R. Forbes, M.B., Ch.B., D.P.H.

Forest :

E. L. Ewan, M.B., Ch.B., B.Hy., D.P.H.
 Mary Collins, M.B., B.S., D.R.C.O.G.
 *J. H. Crosby, M.B., Ch.B., D.P.H.
 *H. Franks, M.B., B.S., B.Hy., D.P.H.
 *J. L. Patton, M.B., Ch.B., D.P.H.

Romford :

A. P. Draper, M.C., M.A., M.D., B.Ch., B.A.O.
 Elizabeth M. Haga, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.
 Gertrude A. K. Kolibabka, M.A., M.B., Ch.B.

Barking :

*J. Cramond, M.B., Ch.B., D.P.H.
 Margaret I. Adamson, M.B., Ch.B., D.P.H.
 E. Martin, M.B., Ch.B.
 E. Popper, M.D.
 A. E. Seligmann, M.D., D.T.M. & H.
 Violet Spiller, M.D., M.R.C.S., L.R.C.P., D.P.H.
 Mary Westlake, M.B., Ch.B., D.P.H.

Dagenham :

*H. D. H. Robinson, M.R.C.S., L.R.C.P., D.P.H.
 Catherine Fitzpatrick, M.B., B.Ch.
 Fannie Hirst, M.B., Ch.B., D.P.H.
 E. W. P. Knapman, M.R.C.S., L.R.C.P., L.D.S.
 Wilhelmina C. Maguire, L.M. & L.R.C.P., L.R.C.S.I.
 Madeline Weizmann, M.R.C.S., L.R.C.P.

Ilford :

Desiree M. B. Gross, M.D., Ch.B., D.P.H., M.M.S.A.
 Annie Collins, M.B., B.Ch., B.A.O.
 Helen B. Grange, M.B., B.S.
 Frances E. O'Connor, B.A., M.B., B.Ch., B.A.O., D.P.H., L.M.
 Joan M. Pooley, M.B., B.S., D.C.H.

Leyton :

*Mary L. Gilchrist, M.D., Ch.B., D.P.H.
 Ethel R. Emslie, M.D., Ch.B., D.P.H., D.C.H.
 S. C. Lovell, M.R.C.S., L.R.C.P.

*Part-time

Walthamstow :

*M. Watkins, M.R.C.S., L.R.C.P., D.P.H.

Mary C. Sheppard, M.A., M.B., B.Ch., B.A.O., D.P.H.

T. T. Currie, M.B., B.S.

Roshan A. Irani, M.D., M.S., M.R.C.O.G.

Dental Surgeons :*North-East :*

D. C. Blyth, L.D.S.

J. F. Godfrey, L.D.S.

G. W. Lawrence, L.D.S.

Mid-Essex :

B. G. Brown, L.D.S.

A. M. Hughes, *O.B.E.*, *M.C.*, M.R.C.S., L.R.C.P., L.D.S.

*F. V. Maguire, L.D.S.

Nania S. Mezits, D.D.D. (Riga).

South-East :

*H. D. Cockram, L.D.S.

*D. W. Hurley, L.D.S.

*W. Leigh-Breese, L.D.S.

*Norah I. H. Shannon, L.D.S.

*H. L. Thorn, L.D.S.

South Essex :

Charlotte Grieshaber, D.M.B. (Berlin U.).

Omula Saunders, D.D.S. (Latvia).

*R. B. Allen, L.D.S., B.Ch.D.

*D. A. Fairfax, L.D.S.

*H. C. Heighton, L.D.S.

*J. O. McGee, L.D.S.

*B. Wyers, L.D.S.

*R. A. Collins, L.D.S.

Forest :

Emma Kimelman, M.D. (Vienna).

*R. Chase, L.D.S.

*C. A. O'Sullivan, B.D.S.

Romford :

Dora Shirlaw, L.D.S.

Barking :

H. H. Cooke, L.D.S.

A. R. Levy, L.D.S.

J. Presser, M.D. (Vienna).

R. A. Tran, L.D.S. (resigned 31-12-51).

*Part-time

Dagenham :

B. C. McKenzie, L.D.S.
J. Ritchie, L.D.S.

Ilford :

E. V. Haigh, L.D.S.
A. G. Clark, L.D.S.
M. Snipper, L.D.S.

Leyton :

A. E. Hall, L.D.S.
Dorothy M. Powell, L.D.S., L.R.C.P., L.R.C.S., L.R.F.P.S.
C. Shamash, L.D.S., B.Ch.D.
J. G. Douglas, L.D.S.

Walthamstow :

L. W. Elmer, L.D.S.
G. P. Taylor, L.D.S.
R. E. Hyman, L.D.S.
J. C. Timmis, L.D.S.
Dena Anklesaria, L.D.S.
R. V. Tait, L.D.S.

*Part-time.

						Whole-time.	Part-time.
Health Visitors, Midwives, Medical Auxiliaries, etc. :							
Superintendent or Senior Health Visitors	..	..				9	2
Non-Medical Supervisors of Midwives	..	..	..			1	8
Supervisors of Home Nurses	..	..	..	..		—	8
Domestic Help Organisers	..	..	..	..		11	—
Health Visitors, Tuberculosis Visitors and School Nurses						193	32
Clinic Nurses	..	..	..	..	..	7	24
Midwives	..	..	..	..	..	65	2
Home Nurse Midwives	..	..	..	..	..	184	13
Home Nurses	..	..	..	..	..	35	13
Dental Technicians	..	..	..	..	..	7	—
Dental Attendants	..	..	..	..	..	30	8
Domestic Helps	..	..	..	..	..	106	1,310
Chiropodists	..	..	..	..	..	17	1
Day Nursery Matrons	..	..	..	..	..	30	—
„ „ Deputy Matrons	..	..	..	..	..	28	—
„ „ Nursery Nurses	..	..	..	..	..	87	—
„ „ Enrolled Assistant Nurses	..	..	..	..	..	3	—
„ „ Wardens	..	..	..	..	..	28	—
„ „ Nursery Students in Training	..	..	..	..	..	134	—
Speech Therapists	..	..	..	..	..	13	2
Audiometricians	..	..	..	..	..	1	—
Psychiatric Social Workers	..	..	..	..	..	6	—

PREFACE

COUNTY HALL,
CHELMSFORD.

August, 1952.

To the Chairman and Members of the Health Committee.

Madam, My Lady, Ladies and Gentlemen,

I have the honour to present my Annual Report as Medical Officer of Health of the County for the year 1951. The diverse nature of the services controlled by the Health Committee is well exemplified by the matter contained in the various sections of the report, and details of what has been done and attempted in the field of preventive and of social medicine are outlined under appropriate and related headings. Comments are made upon various aspects of the work and the report as a whole contains a brief account of the activities of the Department over the year, with such statistics as are necessary to illustrate the trends of disease and mortality and to amplify the written word in respect of the services rendered to the community.

There are certain features of the report which justify special comment in this preface, and they are dealt with under the headings which follow.

Fluorine and Dental Caries.

In the appendix to the report will be found an account of an investigation into the condition of children's teeth in certain areas of the County where there is a high content of fluorine in the public water supply and a comparison of the findings in these areas with those in other areas with lower fluorine contents in the water supply or where the water supply is completely devoid of fluorine.

It has long been known that in areas with a high content of fluorine in the water supply certain changes take place in the enamel of the teeth, producing a condition of mottling which may vary from a slight discolouration to a marked disfigurement. As long ago as 1933, Ainsworth noted the mottled condition of teeth in the population of the Maldon area of Essex where the drinking water contains a high concentration of fluorine.⁽¹⁾ Although it was also noted at that time that the teeth in this area seemed less prone to decay, this aspect of the effect of fluorine in the water supply upon the dental condition of the inhabitants was not particularly emphasised. Subsequent work, however, both in this country and the United States of America has established that the incidence of dental decay amongst the population in areas with a high fluorine content in the water is considerably less than in areas where the water supply is devoid of fluorine. The investigations which have been undertaken since the autumn of 1950 in this County indicate that the difference in the results between the dental state of children living in Maldon and Burnham-on-Crouch and those living elsewhere can probably be accepted as resulting from the higher fluorine content in the water in the Maldon and Burnham-on-Crouch areas. This confirms findings in other parts of this and other countries.

(1) Ainsworth, N. J., Brit. Dent. J. 55, 233

During the past ten years in the United States of America certain experiments have been carried out in the painting of the teeth of children with a solution of sodium fluoride with a view to preventing dental decay, and it has been stated that amongst children who receive this topical application of fluorine there is a lower incidence of dental caries than amongst those in a control group. In this country certain Local Education Authorities are co-operating in an investigation as to the effect of the topical application of a solution of fluoride to the teeth of school children, but as yet no conclusive results have been published.

Another aspect of this question which has been receiving very considerable attention in the United States of America is the fluoridation of water supplies with a view to the improvement of the dental condition of the population consuming the water. Since it has become firmly established that the use of certain waters during the period of tooth development had an effect characterised by mottling of the tooth enamel and that the incidence of dental caries in these areas was considerably lower than in other areas, it would appear reasonable to assume that the deliberate addition of specified quantities of fluorides to the water supply might produce an equally beneficial result. In the United States of America the American Waterworks Association have been undertaking the artificial raising of the level of fluorine in public water supplies and carrying out periodical dental surveys to assess the results, and in many areas there is a strong public demand that the State Authorities, Water Departments and Companies should participate in the systematic fluoridation of public water supplies. The American Public Health Association state that the evidence produced indicates a sound basis for the fluoridation of public water supplies for the partial control of dental caries and that this procedure should be recommended as a safe and effective method for reducing the prevalence of dental caries.

I would suggest that serious consideration should be given to a scheme for the fluoridation of water supplies, either in the whole or part of the County, and that an approach should be made to the water undertakings with a view to discussing the possibilities. The evidence which has been obtained locally of the beneficial effects of fluorine on the incidence of dental caries amongst children and in later life is such that expenditure incurred in the fluoridation of water supplies in the County would be amply justified by the improved condition of the teeth of the population. Colonel Mackenzie has pointed out recently that the total cost of fluoridation, including interest on capital depreciation, operating costs and laboratory control based on the experience of the American Waterworks Association would range between the equivalent of 4d. to 1/- per consumer per year. It is his opinion that the cost would be offset many times by the savings that might reasonably be expected in the cost of the dental service.⁽²⁾

Tuberculosis

There has been some reduction in the number of new cases of tuberculosis notified during 1951 as compared with 1950, but as is pointed out in the appropriate section of the report, although there were fewer cases of respiratory tuberculosis notified this was not so in every age group. There were notable increases in the number of new cases in the older age groups but a welcome decrease in the notifications amongst the younger age groups.

(2) Mackenzie, E. F. W., *Lancet*, May 10, 1952.

The increase in the number of cases of tuberculosis coming into new housing estates in the County from the area of the London County Council has continued during the year, and the incidence of tuberculosis on the Harold Hill Estate which has a population of some 20,000 is almost three times that of the neighbouring town of Romford of which the estate forms a part. Whilst it is proper that tuberculous families should receive priority in rehousing and that the new housing estates, situated as they are in country districts outside London, should be used for the reception of persons suffering from tuberculosis, the immigration of large numbers of tuberculous families has created many problems for the Local Health Authority in the County. It has been necessary, for example, to establish new chest clinics, to make arrangements for the transport of tuberculous persons from their homes to out-patient clinics at regular intervals, and to appoint additional nursing staff to visit patients in their own homes. Arrangements have been made with the Housing Department of the London County Council to have some advance notice of the likely numbers of tuberculous families to be transferred to new housing estates in the County in order that it will be possible to plan to some extent in advance for the appropriate services to be provided for their welfare.

There has been further progress in the measures applied for the prevention of tuberculosis, particularly in relation to the more direct methods such as B.C.G. vaccination. The hostel at "Ardmore", Buckhurst Hill, which was provided for the reception of child contacts from infectious households has operated successfully during the year and it has been possible in many instances to remove infants and young children from immediate contact with infectious cases and to segregate them in the hostel whilst they are being protected by B.C.G. vaccination. The demand upon the resources of the hostel has increased very considerably and there is now a waiting list. As much as possible is done in trying to secure accommodation in private households for children who require to be segregated whilst they are receiving B.C.G. vaccination but unfortunately the number of private homes where such children can be received is limited, and if the requirements of the Ministry of Health as to segregation are to be strictly adhered to, the waiting list at "Ardmore" is likely to grow. Certain of the chest physicians working in the County have been able to undertake B.C.G. vaccination of children whilst they remained in their own homes, but again this is the exception rather than the rule, and more intensive efforts will have to be made to secure accommodation for these children with private families.

As a result of certain difficulties in two areas of the County in connection with the provision of B.C.G. vaccination of child contacts, approval was obtained from the Ministry of Health for certain of the Assistant County Medical Officers to undertake this work. The vaccination of child contacts is only permitted by medical officers approved by the Ministry, and up to the present this approval has been confined to chest physicians operating at chest clinics in the County. With the Ministry's approval a number of Assistant County Medical Officers have received instruction in the technique of B.C.G. vaccination at Great Ormond Street Hospital under the tutelage of Dr. Marcia Hall and are now carrying out this work under the general supervision of approved chest physicians. With the shortage of medical staff and the very considerable amount of work to be undertaken at chest clinics it may be desirable

to extend these facilities since it is essential that every effort shall be made to ensure that all children eligible for B.C.G. vaccinations shall receive it. The wide variation in the number of vaccinations carried out at the different chest clinics is noted in the appropriate section of the report, and at some chest clinics no vaccinations were undertaken during the year. This may be due to some extent to under-staffing of the chest clinics, and the appointment of Assistant County Medical Officers to undertake the work should do much in the next year to remedy this deficiency.

A development which was approved in principle during the year in connection with the care of tuberculous persons in their own homes was a proposal to appoint three occupational therapists to work in the Areas adjacent to London. One occupational therapist will be shared by two Areas, and it is intended that instruction and supervision of various occupational pursuits shall be undertaken for those patients who are confined either to bed or to their homes. The work will be carried out under the general supervision of the chest physicians in the area and should provide a much needed addition to the welfare of the home-bound patient.

An agreement was also made with the Joint Committee of the British Red Cross Society and Order of St. John to extend their arrangements for the loan of books to tuberculous persons in their own homes who are precluded from borrowing books from public libraries. The County Council makes a grant of 2/6d. in respect of each patient to whom books are lent in any one year and a number of patients have availed themselves of this new provision which again is an important addition to the sum total of their happiness and welfare.

Vital Statistics

The birth rate for the year showed only a fractional deviation from that in 1950 but the increases in the numbers of births in certain areas where new housing estates are being developed has offset decreases in other parts of the County. Without the influence of the influx of population to these estates there would have been a continuing and more marked decrease in the birth rate for the County as a whole to a level lower than that obtaining immediately prior to the war.

The death rate of 10.6 per 1,000 of the population is the highest registered since 1947, and heart disease and malignant conditions were the two main causes of death, with rates of 3,478 and 1,828 per million respectively. There was a further reduction in the number of deaths from respiratory tuberculosis, the rate having fallen from 352 per million in 1948 to 210 per million in 1951.

The infant mortality rate of 21.7 is the lowest ever recorded in the County and compares very favourably with the rate of 29.6 for England and Wales. A note is included in the appropriate section of the report as to the considerable variation in the infant mortality and neonatal mortality rates in different parts of the County, and further study will be made as to the causes of infants' deaths and of methods to be employed in prevention in those areas where higher rates occur.

In my report last year I referred to the high death rates from accidents, particularly those occurring amongst young men between 15 and 25 years and involving motor

vehicles. In the subsequent paragraph special mention is made as to the numbers of deaths from all forms of accidents, with particular emphasis as to those occurring in the home.

Accidents in the Home

The total number of deaths from accidents of all kinds in the County during the year was 405. Of these 154 were motor vehicle accidents and a high proportion of the remaining 251 deaths resulted from accidents in the home. Under the age of fifteen years there were 33 deaths amongst males and 13 deaths amongst females, and over the age of 65 years, 42 deaths occurred from accidents amongst men and 67 amongst women. Thus amongst the very young and amongst the elderly portions of the population high numbers of deaths from accidents occur which are almost entirely unrelated either to the perils of the road or to the dangers of industry but arise through home accidents.

In England and Wales about 6,000 persons die every year as a result of accidents in their homes, and four-fifths of the fatalities occur in young children under five years and in elderly people over 65 years.

It is difficult to assess the numbers of serious non-fatal home accidents since such occurrences are not notifiable or registerable but Boucher in the Monthly Bulletin of the Ministry of Health points out that a reasonable estimate can be made from figures available in certain parts of the country. "In 1946 it was found at the Edinburgh Royal Infirmary that of all the accidents treated in the out-patient department 23 per cent. occurred in the home. In 1946 a careful survey was made of the area, with 13,000 inhabitants, surrounding the Birmingham Accident Hospital; it was found that nine per cent. of the children under ten years and three per cent of older children were treated at this hospital for accidents which had occurred in the home; during the year four per cent. of this whole population of 13,000 were treated at this hospital for home accidents".⁽³⁾ From these figures Dr. Boucher gives a possible estimate for England and Wales of 1,675,000 home accidents of sufficient severity to require hospital treatment, including more than half a million children under ten years of age.

These figures of deaths and serious disability resulting from home accidents give an indication of the size and severity of the problem, and immediately raise the question of prevention. The two most common causes of death are falls causing about 60 per cent. of the fatalities, and burns and scalds resulting in about 12 per cent.

The deaths from falls in the home occur mainly amongst old people and may be due to faulty construction or design, e.g. of stairs, including handrails, the placing of single steps at changes of floor level or of poor maintenance, defective flooring, stair treads and inadequate lighting. The majority of accidents are, however, due to lack of appreciation of the hazards of the home either from carelessness, e.g. frayed and worn floor coverings, objects left lying on floors or loose rugs on highly polished surfaces. Elderly persons are more prone to have difficulty in recovering balance, lack the co-ordination of muscle and more rapid reflexes of younger people and special measures are necessary in their homes to prevent the occurrence of serious accident through falls.

(3) Boucher, Ministry of Health Bulletin, January, 1952.

Burns and scalds fatal or serious enough to require admission to hospital occur most frequently amongst young children, and again a high proportion are due to carelessness, ignorance of the risks of accident in the home or failure to provide fundamental necessities such as an adequate fireguard. Whether a fire is of the open type, or of the electric or gas type it should have an adequate fireguard, particularly where there are young children in the home. A fireguard survey was recently carried out in 987 homes by Regional Organisers of the Women's Advisory Council on Solid Fuel, and in three-quarters of these homes there were young children ; 23 per cent. of these homes never used a fireguard, and more than half only used one intermittently. These figures illustrate the lack of appreciation amongst parents of the need for this elementary precaution where there are young children in the home.

A high proportion of accidents occur in the kitchen, particularly when cooking or washing is taking place, and here again carelessness in the placing of receptacles containing boiling liquids either in the process of cooking or washing is a potent cause of scalds amongst young children who cannot be expected to appreciate the dangers from the accidental pulling over of saucepans, basins, etc., containing boiling water.

Amongst other causes of death in young infants is accidental suffocation, and about 100 deaths from this cause occur every year in babies under six months of age.

It will be apparent from the foregoing that a large percentage of home accidents, whether fatal or otherwise, occur either through ignorance or carelessness and are therefore preventable. The most obvious need is for continuous education of the public as to the dangers of home accidents and this applies particularly to the parents of young children. Already much is being done on a national basis by organisations like the Royal Society for the Prevention of Accidents, and very much more attention has been given in the last two or three years to this subject. There is, however, a great need for local authorities to initiate action in their areas for continuous education of parents through the various media available. A considerable proportion of the time devoted to health education could profitably be spent in drawing the attention of the public to this major problem, and health visitors and others who visit homes continuously should afford instruction in the prevention of home accidents as part of their routine duties.

In this County part of a one-day course for medical officers, public health nurses, sanitary inspectors, etc., was recently devoted to the subject of home accidents, when Dr. Boucher of the Ministry of Health addressed the members of the staff with a view to bringing home to them the urgent necessity for keeping prominently before them in their work the subject of the prevention of home accidents. Health visitors and home nurses particularly have been instructed that education on this subject shall be included as a regular part of their duty in carrying out domiciliary visits. In addition the Health Education Organiser included amongst exhibitions and addresses to various organisations items in connection with home safety, and special films related to this subject have been shown to audiences in various parts of the County. It is intended that continuous attention shall be given at every opportunity to keep this subject prominently before parents with a view to attempting to secure a reduction both in fatal and non-fatal accidents.

Health Centres

In my Annual Report of last year I mentioned the steps which had been taken by the County Council for the establishment of health centres at Romford (Harold Hill) and in the New Town of Harlow, and pointed out the difficulties which had been encountered in the provision of these centres. Preparations for the provision of a health centre at Harlow were far advanced at the end of the year, and in January of 1955 a temporary health centre was formally opened by the Parliamentary Secretary to the Ministry of Housing and Local Government.

HARLOW HEALTH CENTRE. It was originally intended that four main health centres should be provided in Harlow New Town to serve the eventual population of some 80,000 persons. Each of these health centres would be based on the neighbourhood unit of 20,000 population and would combine comprehensive facilities for family doctor services with the health and social services of the County Council. Provision would also be made for specialist services if this was considered necessary by the Regional Hospital Board, and tentative plans were drawn up by the County Architect of a prototype health centre which would be suitable for this purpose.

It was evident, however, that during the period of growth of the first neighbourhood unit some provision would have to be made both for family doctor and Local Health Authority services, and steps were taken to provide a temporary health centre for this purpose. The Harlow Development Corporation agreed to provide a pair of semi-detached houses which would be suitable for adaptation both for family doctor services and Local Health Authority requirements, and since the scheme was a temporary one and it was intended that the houses would eventually revert to dwelling house accommodation, the Harlow Development Corporation would retain the ownership. In these circumstances the County Council felt that they would only be able to suggest to the Corporation that the houses should be leased for five years, and that such adaptations as would be carried out should be of a relatively minor character to enable them to be reconditioned without undue expenditure at the end of this period.

In the course of the discussions with the Harlow Development Corporation it became evident that unless the houses were used in the first instance as dwellinghouses, the Corporation would lose the housing subsidy not only for the five years during which the County Council had a tenancy but for the full 60 years. In these circumstances neither the County Council nor the Harlow Development Corporation felt justified in making good the loss which was the equivalent of about £1,100. Through the good offices of Dr. Stephen Taylor, a member of the Harlow Development Corporation, the Nuffield Provincial Hospitals Trust agreed to make a grant of £2,200 and a supplementary grant of £250, thus making it possible to overcome the technical difficulty of the loss of the housing subsidy and to furnish the family doctor part of the centre on rather better lines.

The temporary health centre which it has been possible to complete provides accommodation for three doctors' surgeries with a small examination room attached to each, a general waiting room which is used not only for the family doctor services but also by patients making use of the various clinics of the Local Health Authority, a combined dental surgery with a small laboratory, and accommodation for a minor

illments clinic, child welfare centre, ante-natal clinic and a health visitor's office. In addition a small kitchen is available for the child welfare centre. Although the accommodation provided is somewhat cramped, particularly with regard to waiting room accommodation, the health centre had to be designed within the actual space of the pair of semi-detached houses. It has been found, however, in practice that it is perfectly practicable to undertake all the work, both of the family doctor and the Local Health Authority, for such population as is already resident in the New Town, and it is estimated that a small health centre of this type will be capable of dealing reasonably with a population of some nine or ten thousand.

One of the most important factors in the operation of the health centre is good personal relationships between the various persons who have to work there—private doctors, local authority medical officers, public health nurses, etc.—and in order that any difficulties which occur may be fully discussed and overcome as easily as possible, a small House Committee, consisting of a member of the Harlow Development Corporation, a private practitioner, the dental surgeon, the County Medical Officer of Health and the Area Medical Officer, meets regularly. It is gratifying that after six months' working no serious troubles have arisen, and the various workers at the centre have co-operated easily to the benefit of all patients using it. Up to now only one family doctor has practised from the centre, but it is intended that a further doctor will commence in September next, and eventually three private doctors will operate from the centre.

Experience of the working of a small unit of this nature has given the impression that rather than provide large health centres for populations of 20,000 it may be more desirable to provide a larger number of smaller health centres which seem to provide a closer relationship between the doctors, nurses and patients than would be expected in a very much larger and more impersonal building. There will be a certain period of time to gain further experience before a decision has to be made as to the provision of a main health centre for the first neighbourhood unit of 20,000 people, and it may be that eventually instead of providing a large health centre costing some £100,000 it will be found more desirable to provide further smaller units at a more economical capital cost but with some inevitable dispersal of the staffing resources of the Local Health Authority.

A photograph of the health centre together with photographs of some of the rooms will be found facing page 32. It will be appreciated that this health centre was originally intended to be of a completely temporary nature; it is experimental and has cost approximately £7,800 to build and equip. It would therefore be wrong to expect that it will cater completely and adequately for all the services a health centre is intended to provide, but the experience gained from its working will be of the greatest value in determining the future design and size of health centres in areas of this nature.

Preliminary consultations are taking place with the Harlow Development Corporation as to the provision of further premises in an isolated part of the first neighbourhood unit which might be used as a small health centre for one full-time general practitioner and another practising part-time, together with such Local Health Authority services as are necessary to serve a population of some 4,000.

ROMFORD (HAROLD HILL). Negotiations continued during the year with the Ministry of Health as to the provision of a health centre at Harold Hill, and it was possible to reach agreement with the Executive Council as to the arrangements to be made for payments for services to be provided by the County Council. Certain modifications of the plans submitted to the Ministry have now been agreed by the County Council, and a final plan has been submitted for the approval of the Minister. It would therefore appear that most of the preliminary difficulties have been surmounted and final approval by the Ministry of Health to commence work should be forthcoming if it is considered that the necessary funds are available.

This health centre is designed to provide accommodation for four family doctors, for comprehensive services of the Local Health Authority, and accommodation for two dentists, and will serve an ultimate population of approximately 28,000.

HEALTH SERVICES CLINICS. Work on the erection of health services clinics at South Hornchurch and the London County Council Housing Estates at Loughton Hall and Friday Hill was commenced during 1951 and each of these clinics was completed during the early part of 1952.

The health services clinic at the London County Council's Hainault Housing Estate was completed in July, 1951, and has been in successful operation since that date.

It has been possible, therefore, to provide up-to-date and complete Local Health Authority clinic services on these new housing estates, and a further clinic is projected at Dagenham.

Conclusion

Amongst other items in the report which merit special mention are the section on the County Ambulance Service and that dealing with the provision of domestic helps in homes where difficulties have arisen through illness.

The system of communications of the Ambulance Service has been reorganised to enable radio telephony to be put to use in those areas of the County outside the London fringe. As a part of this reorganisation of communications direct lines from ambulance stations in the Boroughs bordering London to a control centre at Ilford have been installed, and the controller and his staff now direct the movements of vehicles from all these stations. Early in 1952 a control room was opened at Chelmsford for the operation by radio telephony of vehicles in all other parts of the County.

As a result of the new system of communications the Ambulance Service is operating more smoothly and efficiently, and it is hoped that economy in mileage will result, particularly in the areas controlled by radio telephone.

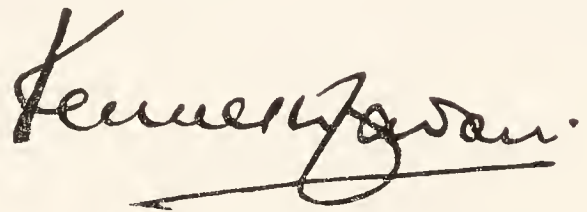
The Domestic Help Service, which is completely decentralised to Health Area Sub-Committees, continues to provide much-needed assistance to families in the County where difficulties have arisen owing to illness. There has been an increase in the amount of help afforded in households where there are chronic sick persons, but the rapid expansion of this service which was noticeable from the appointed day has been less marked over the year and it has become more stabilised.

The various sections of this report have been compiled by the senior medical officers and their respective senior administrative assistants ; technical officers have been responsible for special items, and, as in previous years, the production of the report has been a co-ordinated effort on the part of the senior staff of the Department.

I would like to place on record my thanks to the Chairman and Members of the Committee for their continued support and to the staff for their loyal and devoted service during the year. A special word of appreciation is due to Dr. Stewart and Mr. Clarke, Senior Lay Administrative Assistant.

I have the honour to be,

Your obedient Servant,

A handwritten signature in dark ink, appearing to read 'Kenneth Gordon'. The signature is written in a cursive style with a long horizontal stroke extending to the left from the bottom of the name.

County Medical Officer of Health.

SECTION I—STATISTICAL

ACREAGE, POPULATION AND SOCIAL CONDITIONS

THE fifteenth census of the population of England and Wales was held on 8th April, 1951. Figures published in the preliminary report show that the area of the Administrative County was 959,463 acres and the population on census night 1,599,884 ; the intercensal increase of population was therefore 410,880. Substantial decreases occurred in the Boroughs of Leyton (23,130) and Walthamstow (11,903) and increases of over 30,000 in Hornchurch Urban District (64,739), Ilford Borough (53,646), Romford Borough (50,151) and Chigwell Urban District (35,437).

The distribution of County Districts according to their percentage increase in population between the censuses is as follows :—

Percentage Increase.		Number of Urban Districts.		Number of Rural Districts.	
Over 100 per cent.	..	5	..	0	
50–100 per cent.	..	3	..	0	
25–50 per cent.	..	12	..	4	
0–25 per cent.	..	9	..	7	
Decrease	..	3	..	0	
		—		—	
		32		11	
		—		—	

The highest percentage increases were in Canvey Island Urban District (219 per cent.), Chigwell Urban District (217 per cent.), Hornchurch Urban District (164 per cent.), Romford Borough (132 per cent.) and Chingford Borough (119 per cent.).

The Registrar General's estimate of the home population for mid-1951 was 1,600,900. The acreage, preliminary census population and estimated home population for mid-1951 are given for each County District, for Health Areas and for the aggregates of urban and rural districts in Table I on page 120.

The publication of the County Volume of the Census with information on age distribution, housing and other important social matters is awaited with great interest. I hope to be in a position to comment on these matters in my next Annual Report.

VITAL STATISTICS.

The principal vital statistics of the Administrative County, Health Areas and County Districts are given in Table I. For convenience of comparison with previous years the principal annual rates are set out below for the last four years :—

	1948	1949	1950	1951	
Live Birth Rate ..	17.4	16.0	14.7	14.6	per 1,000 population
Still Birth Rate ..	20.1	19.3	20.3	21.5	„ „ total births
Illegitimate Birth Rate	40.6	38.9	39.2	37.6	„ „ live births
Death Rate (all causes)	9.4	10.4	10.0	10.6	„ „ population
Infant Mortality Rate ..	25.1	24.7	23.4	21.7	„ „ live births
Infant Mortality Rate .. (illegitimate infants)	35.1	44.3	39.2	31.8	„ „ illegitimate live births
Neonatal Mortality Rate	15.4	16.5	16.9	14.9	„ „ live births
Maternal Mortality Rate	0.96	0.75	0.67	0.54	„ „ total births

Live Births

There were 23,407 live births to Essex residents registered during the year giving a birth rate of 14.6, fractionally lower than in 1950, although there were 53 more births registered. In only three Health Areas, South Essex, Romford and Walthamstow were more births registered in 1951 than in 1950. The increases amounted to 145, 297 and 47 respectively. The increases in Romford are undoubtedly connected with the influx of population into the London County Council's Harold Hill Housing Estate and part of the increase in South Essex may be due to the new Aveley Estate.

The two County Districts in which there have been altogether exceptional increases of population (amounting to tens of thousands) in the last few years due to immigration from London are the Borough of Romford and the Urban District of Chigwell. If we consider the remainder of the County, we find that there were 288 fewer births registered in 1951 than in 1950 equivalent to a decrease of 0.2 in the birth rate which for this part of the County now stands at less than 14.3, lower than immediately pre-war, although a more accurate measure of fertility might show that this is due to the age shift of the population rather than to any decrease in the number of children born. It will be possible to investigate this possibility further when the full census figures are available.

Still Births

Five hundred and fifteen still births were registered during 1951 giving a still birth rate of 21.5 per 1,000 which is the highest rate since 1946 though lower than in that and all previous years.

Illegitimacy

Illegitimate births numbered 902 of which 22 were still births, a still birth rate of 24 compared with a rate of 21 for legitimate births. The percentage of live births which were illegitimate was 3.76 per cent. rather lower than in other post-war years.

Infant Mortality

There were 507 deaths of infants under the age of one year giving an infant mortality rate of 21.7 compared with 23.4 in 1950 continuing the fall in this rate which has been noted each year since 1946. The mortality rate of illegitimate infants was also lower, being 31.8 compared with 39.2 in 1950.

Of the 507 infant deaths, 349 occurred before the age of four weeks, giving a neonatal mortality rate of 14.9 compared with 16.9 per 1,000 live births in 1950. In previous years, differences in the infant mortality rate in different parts of the County have been noted. It is now possible to examine these differences again and consider whether they are due to mortality in the first month of life or later during the first year. Figures are available for County Districts for the three years 1949, 1950 and 1951. This is too short a time to draw conclusions about differences in the rates in small County Districts but if the larger districts are examined and compared with groups of smaller districts, interesting results do appear.

For this purpose the usual division of the county into Health Areas is not entirely satisfactory and consequently the districts in Areas 1 to 5 have been grouped according to type of district rather than to locality. The Urban District of Thurrock has been kept separate as it had a very high infant mortality rate in the period 1949-51. The Boroughs of Chingford and Wanstead and Woodford and the Urban Districts of Hornchurch and Chigwell have been put into a group of "Dormitory Suburbs." The other Urban Districts (including Boroughs) of Areas 1 to 5 have been put into one group and the Rural Districts into another. No district has a rate significantly different from that of its group.

INFANT MORTALITY 1949-51.

	<i>Live Births</i>	<i>Under 28 days</i>		<i>28 days-12 months</i>		<i>Under 12 months</i>	
		<i>Deaths</i>	<i>Mortality Rate</i>	<i>Deaths</i>	<i>Mortality Rate</i>	<i>Deaths</i>	<i>Mortality Rate</i>
Barking	3,679	54	14.7	29	7.9	83	22.6
Dagenham	5,452	107	19.6 S	52	9.5 S	159	29.2 S
Ilford	7,412	105	14.2	43	5.8	148	20.0
Leyton	4,388	65	14.8	34	7.7	99	22.6
Walthamstow	5,071	86	17.0	47	9.3	133	26.2
Romford	4,484	65	14.5	32	7.1	97	21.6
Dormitory Suburbs ..	11,547	169	14.6	67	5.8	236	20.4
Thurrock	4,317	78	18.1	51	11.8 S	129	29.9 S
Other Urban Districts ..	14,702	275	18.7 S	103	7.0	378	25.7
Rural Districts	10,644	150	14.1	58	5.4 S	208	19.5 S
County	71,696	1,154	16.1	516	7.2	1,670	23.3

Neonatal mortality was highest in Dagenham and nearly as high in the non-metropolitan Urban Districts and Thurrock. It was moderate in Walthamstow and low in Barking, Ilford, Leyton, Romford, the Dormitory Suburbs and the Rural Districts.

Mortality after the first month was highest in the Urban District of Thurrock and also high in Dagenham and Walthamstow. It was average in Barking, Leyton, Romford and the non-metropolitan Urban Districts and low in Ilford, the Dormitory Suburbs and the Rural Districts. The rates which show a significant divergence from the County rate at the 5 per cent. level are shown in the above table by an "S" against the rate.

Mortality in the first year after the neonatal period is usually considered to be affected by environmental conditions and the rates given above roughly agree with this idea. There are however a number of features of this table which are worthy of further study and following up in future years—one such is the higher mortality in

the Borough of Walthamstow than in the neighbouring borough of Leyton—another of the significantly high neonatal mortality in the Urban Districts of non-metropolitan Essex.

Neonatal Mortality in relation to Prematurity

The number of premature births notified during 1951 was 1,237 compared with 1,140 in 1950. The percentage of live births weighing $5\frac{1}{2}$ lbs. or less was thus 5.3 compared with a percentage of 4.9 in 1950.

Information from Area Medical Officers on neonatal deaths was more complete than in 1950, details being obtained of 318 out of 349 deaths compared with 332 out of 394 in 1950. Of the 318 deaths, for which information was obtained, 205 were of premature infants so that the neonatal death rate of premature infants was at least 166 per 1,000 live births, about the same as in 1950. The neonatal death rate of babies over $5\frac{1}{2}$ lbs. was certainly lower in 1951 than in 1950. The number of such deaths was between 113 (the number with a known birth weight of over $5\frac{1}{2}$ lbs.) and 144 (assuming all the babies for whom no information is available weighed over $5\frac{1}{2}$ lbs.), so that the neonatal death rate of mature infants was between 5.1 and 6.5. In 1950, the rate was between 6.6 and 9.3.

The following table shows the number of complete days of life of the 318 infants for whom this information is available :—

		Over $5\frac{1}{2}$ lbs.		$5\frac{1}{2}$ lbs. and under.		Total.
Under 1 day	..	34	..	81	..	115
1 day	..	22	..	40	..	62
2 days	..	10	..	23	..	33
3 days	..	11	..	17	..	28
4 days	..	6	..	11	..	17
5 days	..	5	..	8	..	13
6 days	..	4	..	3	..	7
7-13 days	..	7	..	13	..	20
14-20 days	..	6	..	3	..	9
21-27 days	..	8	..	6	..	14
		—		—		—
Total	..	113	..	205	..	318
		—		—		—

The reduction in the number of deaths of mature infants occurred principally on the first day of life (34 deaths compared with 52 in 1950) and during the second week (7 compared with 20). The age distribution of premature births did not differ significantly from its distribution in 1950.

The causes of death were classified as far as the information allowed according to the "International Statistical Classification of Diseases, Injuries and Causes of Death, 1948" and are tabulated below according to the Intermediate List :—

<i>Inter- mediate List No.</i>		<i>Age at death.</i>			<i>Birth weight.</i>		<i>Total.</i>
		<i>Under 1 day.</i>	<i>1-6 days.</i>	<i>7-27 days.</i>	<i>Over 5½lbs.</i>	<i>5½lbs. and under</i>	
A127	Spina bifida and meningocele	1	2	4	2	5	7
A128	Congenital malformations of the circulatory system	2	5	4	8	3	11
A129	Other congenital malformations	2	9	1	9	3	12
A130	Birth injuries	21	23	2	26	20	46
A131	Post-natal asphyxia and atelectasis	30	38	2	26	44	70
A132	Infections of the newborn ..	—	11	12	12	11	23
A133	Hæmolytic disease of the newborn	6	12	1	14	5	19
A134	All other defined diseases of early infancy	4	5	2	5	6	11
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	49	52	5	2	104	106
Remainder	All other causes	—	3	10	9	4	13
	All causes	115	160	43	113	205	318

Most of the reduction in the number of deaths of mature infants was due to a lower mortality from congenital malformations. For infants of all weights, 30 deaths were classified to congenital malformations compared with 55 in 1950. Table II on page 121 shows that in all there were 63 deaths of infants under the age of one year from congenital malformations compared with 95 in 1950.

The number of deaths ascribed to birth injuries increased from 33 to 46 and the number ascribed to “post natal asphyxia and atelectasis” from 59 to 70, the latter increase being entirely among premature infants. No other diseases showed important differences from 1950.

Of the 23 deaths due to infections of the newborn, 18 were ascribed to pneumonia of the newborn and two to diarrhoea of the newborn. Table II shows that there were another 56 infant deaths due to pneumonia and 12 infant deaths in all due to “gastritis, enteritis and diarrhoea.” The death rate from pneumonia was 3.2 per 1,000 live births compared with 3.1 in 1950 and from diarrhoea 0.5 compared with 0.7 in 1950.

Maternal Mortality

The deaths of 13 women during the year due to disorders of pregnancy and childbirth or to abortion give a maternal mortality rate of 0.54 per 1,000 births compared with 16 deaths and a rate of 0.67 in 1950. It is pleasing to be able to report a further decline in this rate which in 1951 was little more than a third of its value in 1946.

Mortality at all ages

The general mortality rate for the Administrative County was 10.6 per 1,000 compared with 10.0 in 1950 and was the highest registered since the rate of 10.7 in 1947. Table III sets out the number of deaths from various causes in the County, in County Districts and in Health Areas. The following table gives for 1951, 1950, and where possible for 1948 and 1949 death rates per million of the population from some of the principal causes of death :—

	1948	1949	1950	1951
Tuberculosis (Respiratory)	352	336	262	210
Tuberculosis (Non-Respiratory) ..	50	37	26	36
Syphilitic disease	39	33	31	44
Malignant and lymphatic neoplasms ..	1,754*	1,786*	1,834	1,828
Diabetes	61	70	70	68
Vascular lesions of the nervous system ..	1,099	1,191	1,198	1,276
Heart disease	2,697*	3,164*	3,437	3,478
Influenza	27	127	54	206
Pneumonia	334*	443*	330	536
Bronchitis	459	617	501	721
Ulcer of stomach and duodenum ..	99	107	120	122
Nephritis and nephrosis	Not	available	112	93
Motor vehicle accidents	Not	available	94	96
All other accidents	Not	available	153	157
Suicide	99	89	97	95

*Only approximately comparable with 1950 and 1951.

The only causes to show decreases of any magnitude were respiratory tuberculosis and nephritis and nephrosis. Deaths from the other respiratory diseases, influenza, pneumonia and bronchitis were more numerous than for many years. The death rates from influenza and pneumonia were the highest of any year since 1943 and from bronchitis since 1940.

The death rate from non-respiratory tuberculosis returned to the level of 1949, after the exceptionally low rate in 1950. The death rate from syphilitic disease also rose somewhat reaching its highest value since 1947. The death rate from vascular lesions of the nervous system was also at a high level. Other causes of death remained at about the same level as in 1950.

Mortality by age and sex

Table II gives the number of deaths in various age groups and for each sex for the several causes of death. Under the age of 45 there was a tendency for the number of deaths to decrease but over that age considerable increases were registered.

The causes of death to show important decreases under the age of 45 were respiratory tuberculosis (decrease of 78 deaths), cancer (37), heart disease (29) and congenital malformations (28). Causes showing noteworthy increases were bronchitis (15), leukaemia and aleukaemia (14) and non-respiratory tuberculosis (13).

The largest increases in the number of deaths of persons over 45 years of age were :—

Bronchitis	..	..	343
Pneumonia..	..	..	328
Influenza ..	..	..	239
Other Heart Disease	..		215
Vascular lesions of the nervous system ..	..	..	143

The number of deaths ascribed to “Hypertension with heart disease” decreased by 87, most of the decrease being in respect of females. For no other disease did the number of deaths increase or decrease by as much as 50.

MORBIDITY STATISTICS

The number of new claims to sickness benefit received in the 52 weeks ended 1st January, 1952, at local offices of the Ministry of National Insurance in the Administrative County was 217,202 compared with 206,188 in the corresponding weeks of 1950. The incidence of new claims per 1,000 population was 136 compared with 130 in 1950. The increased number of claims was not spread evenly throughout the year but concentrated in the first six weeks. For almost all the remaining weeks of the year, the number of new claims in 1951 was slightly less than in the corresponding weeks of 1950. In the first six weeks, claims were received in respect of 59,620 new cases of sickness compared with 31,309 in the corresponding period of 1950. For the remainder of the year the figures were 157,582 in 1951 and 174,879 in 1950.

A considerable rise in the number of new claims was noticeable in the week ended 2nd January, 1951, when the number of claims was 9,920, more than twice the highest figures registered during the preceding months. The following week 13,800 new claims were received but thereafter the incidence of claims fell steadily so that by the end of February the weekly total was less than 5,000. There seems no reason to doubt that this sudden increase in sickness was due to the importation of influenza virus into the County.

When the distribution of sickness during these weeks is compared for different parts of the County it is found that in the centre and north the peak number of new claims was reached a fortnight or so later than in the south and south-west. Diagrams are given on page 115 showing the number of new claims in the weeks ended 5th December, 1950 to 6th March, 1951, as a percentage of what may be termed the inter-epidemic average, which is the average weekly number of claims in the two periods April 12th–December 19th, 1950 and April 11th–December 18th, 1951. This is given for the five sub-divisions termed North-East, Central, South-East, South Metropolitan and West Metropolitan, the areas of which were delineated in my report for 1950.

It will be noticed that following the trough in the week ended 26th December, 1950, due to the Christmas holiday, claims rose most sharply in South Metropolitan

and after the peak, fell more quickly there than in West Metropolitan or South-East. This suggests that South Metropolitan was affected slightly before West Metropolitan or the rest of South Essex. There is similarly a suggestion that the North-East of the County was affected before the Central part and relatively more severely. It is found, in fact, that the peak week at the Braintree and Maldon offices was one week later than at the offices in Chelmsford, Clacton-on-Sea, Colchester, Harwich and Witham, and that the peak week at Saffron Walden was one week later still. The figures would thus be consistent with a spread away from the line of the main railway and road from London to Ipswich and further north.

The situation in the South and South-West of the county is clarified when we consider the distribution of new claims at each office separately. For although the peak week at most of the offices was the week which ended on 9th January, there are signs from the distribution of new claims in the week adjoining the peak week that at some offices the peak day of claims was early in that week and in others late. The peak appears to have been reached first in Barking where the number of new claims in the week ended 2nd January was not far short of that for the following week. As we go north through East and West Ham and Leytonstone to Walthamstow and Ilford and then on to Buckhurst Hill, the peak day becomes later and the relative incidence in the week ended 2nd January smaller. Possibly Harlow, where the peak was in the week ended 16th January, marks a continuation of this process. The same effect can be seen as we go east from Barking, through Dagenham to Thurrock and Romford and then to Pitsea and Brentwood. The two smaller diagrams illustrate these two movements. Whether they represent a rapid spread from a focus in Barking, or merely importation of the virus into the County at different times, cannot be decided. It is interesting, however, to note from the diagram showing the northward spread that the London and Middlesex figures suggest that metropolitan Essex was affected somewhat earlier than Greater London as a whole although the possibility that individual areas in London may have been affected earlier still cannot be excluded from the available figures.

The incidence of sickness in any area relative to the inter-epidemic average there can be seen roughly by the height and width of the peak. Taking the whole epidemic period from December 27th, 1950 to April 10th, 1951 and the corresponding period a year earlier and relating the number of new claims in these periods to the inter-epidemic average gives the following figures for the five sub-divisions of the county :—

			Number of new claims in epidemic period.		Average weekly claims as per cent. of inter- epidemic average		
			1950	1951	1950	1951	
North East	5,666	9,365	..	149	247
Central	7,196	11,624	..	142	230
South-East	10,730	14,076	..	161	212
South Metropolitan	33,474	43,329	..	156	202
West Metropolitan	20,230	26,734	..	163	215
			-----	-----	-----	-----	
Administrative County	77,296	105,128	..	157	213
			-----	-----	-----	-----	

We see that relative to its usual level of sickness, the rural part of the county was less heavily affected in 1950 and more heavily affected in 1951, than the highly urbanised area adjoining the county of London. When related to population, however, it is found that the metropolitan area had a distinctly higher incidence of sickness each year. This is also true during the summer and autumn, as may be seen from the following figures :—

		Population (thousands)		Average weekly claims in inter- epidemic period.		Average weekly claims per 1,000 population.
South and West Metropolitan	..	969.7	..	2,195	..	2.3
Remainder of County	..	631.2	..	1,006	..	1.6

SECTION II—GENERAL

STAFF

Area Medical Officers

As a result of the successful negotiations with the County District Councils concerned, Dr. J. D. Kershaw and Dr. J. Mervyn Thomas were early in 1951 formally appointed Area Medical Officers for the North-East Essex and Mid-Essex Health Areas respectively.

Dr. W. H. Alderton, Medical Officer of Health for the West Mersea and Wivenhoe Urban Districts and the Lexden and Winstree Rural Districts and an Assistant County Medical Officer, was appointed to act as Area Medical Officer for North-East Essex and Medical Officer of Health for the Borough of Colchester during the absence of Dr. J. D. Kershaw who was granted leave to take a temporary appointment on the staff of the Secretariat of the United Nations Organisation for one year from 20th May, 1951.

Senior Medical Staff

Dr. R. C. Cunningham resigned his appointment as Senior Medical Officer of the Dental Health Section in the Central Office on 14th July, 1951. His successor, Dr. H. J. Griffiths, commenced duties in a temporary capacity on 24th September, 1951.

Combined Medical Service

Preliminary consideration was given to a review of the arrangements made under Section 111 of the Local Government Act, 1933, in accordance with the requirements of the Ministry of Health.

SAFFRON WALDEN DISTRICT. Dr. Irene M. D. F. C. Hastilow commenced duties on 10th March, 1951, as Medical Officer of Health for the Borough and Rural District of Saffron Walden—the first woman to hold the permanent appointment of Medical Officer of Health in the Administrative County of Essex—in succession to Dr. S. R. Richardson who retired after more than 27 years service.

CHELMSFORD AND MALDON DISTRICT. It proved impossible to make any progress in the negotiations with the local authorities concerned for the appointment of a whole-time Medical Officer of Health to serve the Borough and Port Health Authority of Maldon, the Urban District of Burnham-on-Crouch, and the Rural Districts of Chelmsford and Maldon and to act as an Assistant County Medical Officer of Health.

Dr. J. L. R. Philip resigned his temporary part-time appointment of Acting Medical Officer of Health for the Borough and Port Health Authority of Maldon on 30th April, 1951, and Dr. Joan Mackenzie commenced duties as his successor, in a temporary capacity, on 19th July, 1951.

Dental Officers

There was some slight improvement in regard to the recruitment of dental officers, and by the end of the year the equivalent of 24 whole-time staff was employed—an increase of three as compared with 1950. The total authorised establishment is 66 dental officers.

Other Staff

Once again it proved impossible to recruit a sufficient number of health visitors to complete the full establishment, there being no fewer than 30 vacancies on 31st December.

Comparatively few difficulties were however experienced in recruiting midwives and home-nurses to fill vacancies which arose during the year, although the number of applicants was generally small and consequently the choice was limited. The continued lower birth-rate and high proportion of confinements in hospital enabled certain midwives to be redesignated home nurse-midwives, and to assist in the increasing demand made upon the Home Nursing Service.

During the year, arrangements were made in accordance with the recommendations of the former Nurses Salaries Committee for 94 health visitors, midwives, home nurses and home-nurse-midwives to attend post-certificate refresher courses sponsored by the Women Public Health Officers' Association, the Royal College of Nursing, the Royal College of Midwives and the Queen's Institute of District Nursing.

Several part-time physiotherapists resigned who could not be replaced, and as in previous years therefore it was only possible to maintain a minimum service.

Child Care Reserve Courses were provided at the South-East Essex Technical College, Dagenham, and 14 members of the day nursery staffs attended the Supplementary Course held from 1st to 19th October, 1951 : 15 other employees attended the Senior Course from 29th October to 16th November, 1951.

With the completion of decentralisation of certain of the Health Services, establishments have been laid down for administrative and clerical staffs in Health Area Offices. These provide for an appropriate number of General Division posts and the following higher graded posts in each of the eleven Areas:—

- One Grade A.P.T.C. VI.
- One Grade A.P.T.C. IV.
- Two Grade A.P.T.C. II.
- Three Clerical Division.

TRANSPORT FOR STAFF

There was no alteration in the policy of providing cars purchased by the Council for those members of the staff whose official duties necessitate a relatively large amount of travelling, and at the end of the year under review 248 professional and technical officers of the Department were allocated one of these vehicles for their use, an increase of 31 since the end of 1950 which reduced the average number of officers awaiting the provision of such a vehicle from about 30 to approximately 20. In an endeavour to meet the deficiency, four "Cyclemaster" bicycles and one "Corgi" motor-cycle have been purchased and allocated to home nurse-midwives as an experiment.

In accordance with the arrangements set out in Circular 21/49 application was made to the Ministry of Health for priority in the delivery of cars ordered by health visitors and midwives for use in connection with their professional duties.

Of the officers employed in the County Council's Health Services 207 were authorised at 31st December, 1951, to use their privately owned cars, motor cycles, etc., in connection with their official duties, making a grand total of 455 employees provided with motor transport: comparable figures for the previous year were 200 and 417, increases of 7 and 38 respectively.

SITES AND BUILDINGS

Further progress was made in the erection and adaptation of premises to meet the requirements of Part III of the National Health Service Act, 1946. From the following details it will be seen that apart from the completion of new buildings for a clinic and day nursery, two other buildings were adapted for clinic purposes and substantial progress was made in the erection of three more clinics and the adaptation of two houses for use as a temporary health centre.

Health Centres

In order to meet the needs of the growing population of Harlow New Town, agreement was reached with the Development Corporation for the allocation and adaptation of two houses in the Mark Hall neighbourhood for use as a temporary health centre to provide accommodation for the County Council's clinic services as well as for the General Medical and Dental Services. The plans were drawn up to meet all essential requirements at a minimum cost and to permit of the building being economically converted to two standard dwelling houses as soon as a permanent health centre is built.

The building was erected by the Development Corporation at an estimated cost of £5,000, and the County Council pay an economic rent plus a proportion of the costs of adaptation spread over a period of five years for the clinic accommodation provided. A difficulty involving the loss of the housing subsidy amounting to a capital value of £5,100 was surmounted through the generosity of the Nuffield Provincial Hospitals Trust which made a grant of £2,450 to enable the accommodation to be provided at reasonable rentals and also to cover the cost of certain additional furnishings common to all services. The rooms provided for the General Medical and Dental Services were furnished and equipped by the Corporation at a cost of approximately £1,000, and the County Council spent an additional £850 in providing furniture and equipment for their clinics.

On 28th January, 1952, this temporary health centre was formally opened by the Parliamentary Secretary to the Minister of Housing and Local Government (E. Marples, M.P.). A child welfare centre, an ante-natal clinic and a minor ailments clinic have been established there and one general medical practitioner and one dental surgeon are practising from the premises. Some photographs of the clinic appear on page 32.

The Harlow Development Corporation have agreed to allocate in the Master Plan a total of four sites for health centres.

The preliminary plans prepared by the County Architect in October, 1950, for a Health Centre on the London County Council's housing estate at Harold Hill, Romford, were submitted unofficially to the Ministry of Health, and as a result at the end of the year, revised plans were in preparation for official submission. Although negotiations

for acquisition of the site are held up pending a determination of development charges on the whole estate, it is not anticipated this will delay commencement of the project which is estimated to cost approximately £45,000 (including £7,500 for furniture and equipment). Agreement was reached with the Executive Council for Essex in regard to providing accommodation for General Medical and Dental Services.

The Minister of Health has stated he will give sympathetic consideration to the proposal for a health centre (similar to the one suggested for Harold Hill, Romford) on the London County Council's Aveley housing estate. It is proposed to appropriate a site by arrangement with the Education Committee as soon as negotiations for the purchase have been completed. At the close of the year, discussions were taking place with the Executive Council concerning provision for Part IV Services.

Clinics

As mentioned above, the first of four prefabricated clinic premises—situated on the London County Council's Hainault housing estate—was completed in July, 1951 and the official opening was performed by the Chairman of the London County Council (J. W. Bowen, Esq., C.B.E., J.P.), on 3rd November, 1951. A plan of the building together with three photographs will be found facing page 84.

The erection of similar buildings in South Hornchurch and on the Loughton Hall London County Council housing estate was commenced during the year under review and these were completed in the early months of 1952—as was the clinic on the London County Council's Friday Hill housing estate.

It is proposed to build a fifth clinic of this type in Oxlow Lane, Dagenham and sketch plans were submitted to the Ministry of Health and progress was made with negotiations for the purchase of a site.

To meet the urgent needs of residents on the Loughton Hall estate, two houses—Nos. 29 and 31, Rochford Avenue—were, with the co-operation of the London County Council, furnished, equipped and opened as temporary clinic premises in January, 1951: similar provision at Nos. 31 and 32, Elmbridge Road on the Hainault estate was discontinued when the new ad hoc premises were opened.

The adaptation of former office accommodation at 135, Dawlish Road, Leyton for use as a clinic was completed and the premises were officially opened by the Chairman of the Health Area Sub-Committee (Mrs. A. M. M. Burrell, C.C.), on 9th October, 1951. Provision has been made for child welfare, minor ailments, ante-natal and dental clinics.

Improvements to similar accommodation at West Avenue, Walthamstow, were completed early in 1951.

Day Nurseries

The erection of a prefabricated 50-place day nursery in Goodmayes Lane, Ilford was completed and the nursery was opened on 24th November, 1951: it replaces the nursery in Green Lane, Ilford, the site of which was required for housing purposes.

Owing to its bad structural condition and the difficulties involved in reducing the risks in the event of fire, the day nursery in requisitioned property at 75, North Street, Hornchurch, was closed on 27th July, 1951.



Photo : Wainwright.

HAYGARTH HOUSE : View looking west.

HARLOW NEW TOWN: TEMPORARY HEALTH CENTRE.



Photo: F. Harris & Sons, Bishops Stortford.

GENERAL PRACTITIONERS CONSULTING ROOM DOWNSTAIRS.



Photo : F. Harris & Sons, Bishops Stortford. MAIN ROOM FOR COUNTY COUNCIL INFANT WELFARE CLINICS.

HARLOW NEW TOWN: TEMPORARY HEALTH CENTRE.



Houses for Staff

Negotiations were continued with the owners of ten houses occupied by members of the nursing staff; five were purchased and two leases completed. Applications to local housing authorities resulted in the allocation of eight properties to midwives and home nurses and houses were promised in four more instances.

Steps were taken to secure sites for the erection of nurses' houses in Brightlingsea, Chappel and Tiptree and all necessary consents having been obtained, an order was placed during the year for the erection of two flats at Langdon Hills for home nurse-midwives.

Office Accommodation

Schemes were initiated for the extension of the Health Area Offices at Grays (South Essex) and Rayleigh (South-East Essex), estimated to cost £3,250 and £2,250 respectively.

Capital Building Programme

A provisional Building Programme for the financial year 1952-53 amounting to approximately £96,000 was submitted to the Minister early in December as follows :—

Provision of—

- (a) Nurse's House at Brightlingsea.
- (b) Health Services Clinic, Walthamstow.
- (c) Clinic premises, Halstead.
- (d) Health Services Clinic, Aveley Old Village.

Housing accommodation for home nurse-midwives at—

- (e) Shrub End Estate, Colchester.
- (f) Chappel.
- (g) Great Wakering.
- (h) Ashingdon.

Acquisition of and alterations to—

- (i) Day Nursery, London Road, West Thurrock.

Town and Country Planning Act, 1947

The Health Committee requested the County Planning Committee in February to allocate in the County Development Plan 22 sites for Health Services purposes, and in addition to record the need for similar unspecified sites in 67 localities.

New Towns

Following upon the understanding reached with the Harlow Development Corporation for the allocation of sites for Health Services purposes, the Basildon Development Corporation agreed in March, 1951, that sites should be provided for :—

Health Centres—4 (ambulance stations to be included on 2 sites).

Day Nurseries—3.

Occupation Centre—1.

MEDICAL EXAMINATIONS

Once again there was a large increase in the number of staff medical examinations carried out, viz., 2,651 compared with 1,918 during the previous year and 1,748 in 1949 : this total is made up of 2,331 County Council employees and 320 examinations undertaken on behalf of other local authorities.

The revised arrangements brought into operation on 1st September, 1950, whereby a limited number of medical officers on the Council's staff were approved to undertake these medical examinations and to sign the new certificates adopted at the same time have worked well.

LABORATORY SERVICE

There has been one change in the details of the laboratory services which were given in the Annual Report for 1949. In September, 1951, Dr. A. L. Sheather of Chorleywood ceased to undertake the biological examination of samples of milk and it became necessary to arrange for the samples to be distributed between the Public Health Laboratories at Colindale Avenue, N.W.9, Ipswich and Bedford. The new arrangement is working satisfactorily at present but difficulties may arise in connection with the transmission of samples over long distances during the summer months. Owing to the time which elapsed before the new arrangements could be made, the change-over resulted in a falling off in the number of samples examined.

The supplementary Laboratory Service provided by agreement with the Counties Public Health Laboratories was continued during the year. The following is a summary of the samples examined by the different laboratories during 1951 :—

			Number of samples examined by				
			Essex Institute of Agriculture Laboratory.		P.H. Laboratory Service.		Counties P.H. Laboratories.
Milk	..	..	1,460	..	841	..	819
Water	..	..	—	..	293	..	625
Sewage	..	..	—	..	2	..	414
Ice Cream*	..	..	—	..	604	..	1,527
Other Foods*	..	..	—	..	63	..	6
			—		—		—
Total	..	..	1,460	..	1,803	..	3,391
			—		—		—

*Taken mostly by Sanitary Inspectors of County Districts.

Field work carried out by the Counties Public Health Laboratories included an advisory inspection of the water supply to the Borough of Colchester and consultation in connection with two other water supplies. Consideration was given during the year to the desirability of continuing the arrangements for the examination of samples of milk at the Essex Institute of Agriculture, Writtle, and it was decided to cease to use this laboratory as soon as alternative arrangements can be made.

MILK SUPPLY

Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949

The County Council is responsible for the licensing and supervision of milk pasteurisation and sterilisation establishments in that part of the County for which it

the Food and Drugs Authority. At the end of the year 1951, there were 13 pasteurising plants licensed. These pasteurising plants deal with about 20,000 gallons of milk each day. Visits to pasteurising plants numbering 842 were made during the year and routine samples of milk were obtained as follows :—

Phosphatase Test—

Number submitted	..	..	..	..	875
Number failed	..	..	..	..	37

Methylene Blue Reduction Test—

Number submitted	..	..	..	..	880
Number failed	..	..	..	..	Nil.

Additional samples of pasteurised milk were taken during part of the year as an additional check when samples of milk were not being taken for biological examination.

Unsatisfactory reports are investigated immediately and are reported to the Ministry of Food.

The Milk (Special Designations) (Specified Areas) Order, 1951

This order came into operation on the 1st October, 1951, and applies to that portion of the County of Essex consisting of the Boroughs of Barking, Chingford, Dagenham, Redford, Leyton, Walthamstow, Wanstead and Woodford and the Urban Districts of Chigwell and Waltham Holy Cross. From that date no milk may be sold by retail within these areas which is not designated milk, i.e. sterilised milk, pasteurised milk, tuberculin tested milk or accredited milk from a single herd.

The Order is enforceable by the County Council as the Food and Drugs Authority in the Urban Districts of Chigwell and Waltham Holy Cross. At the time the Order came into operation there was a total of 32 milk retailers in the two districts, only four of whom were selling ordinary raw milk; three complied with the Order and the case of one retailer of small quantities of ordinary raw milk was outstanding at the end of the year.

Biological Sampling

Apart from school milks the general policy is to take two samples of milk for biological examination each year from each retailer of accredited or ordinary raw milk and one sample each year from each producer of such raw milks. In addition a few samples of milk are taken for biological examination from tuberculin tested milk supplies. A summary of the results obtained from the samples submitted is as follows :—

Biological Examinations—

No. of reports received	..	..	..	..	310
No. inconclusive	..	..	..	..	17
No. free from tubercle bacilli	..	..	..	..	288
No. containing tubercle bacilli	..	..	..	..	5 (1.6%)

All the samples found to contain tubercle bacilli were in respect of accredited milk supplies. Every such result was reported to the Divisional Inspector of the Ministry of Agriculture and Fisheries. Nine tuberculous cows were removed from herds as a result of investigations which were carried out.

Milk in Schools Scheme

Milk supplies to schools were kept under review during the year on the basis the milk from every school supplier being sampled once in each term. Every sample of raw milk is submitted to bacteriological and biological examinations and every sample of heat treated milk is submitted to the phosphatase and methylene blue reduction tests. One biological examination of heat treated milk from each school supplier is carried out every year. All school milk is now either pasteurised or tuberculin tested. In addition to the samples taken by the Weights and Measures Department for examination for adulteration (see page 41) the following samples were taken by the Health Department for examination with the results shown :—

(a) *Biological Examination—*

No. of reports received	256
No. inconclusive	13
No. free from tubercle bacilli	241
No. containing tubercle bacilli	2 (0.7%)

One of the two samples found to contain tubercle bacilli was from an accredited milk supply which has since been re-designated and the other positive result occurred at the time when an accredited herd was in process of being re-designated tuberculin tested :—

(b) *Bacteriological Examination—*

No. of samples taken	432
No. satisfactory	402
No. which failed to pass the prescribed tests	17 (3.9%)

Most of the unsatisfactory samples were repeats of previous unsatisfactory samples and the number of such results does not represent unsatisfactory supplies.

County Residential Establishments

Sampling of milk supplies to the Council's residential establishments is dealt with on the basis outlined above. In practice very few additional samples need to be taken to include such establishments in the milk sampling arrangements.

ICE CREAM

The arrangements for the examination of samples of ice cream have been continued on the same lines as outlined in the Report for 1949. The following is a summary of the results obtained in connection with samples of ice cream taken during the year graded in accordance with the provisional grading scheme of the Ministry of Health, figures for the previous year being shown for purposes of comparison :—

		1951.	Per cent.		1950.	Per cent.
Grade 1	..	1,271	(59.64)	..	1,121	(54.87)
Grade 2	..	485	(22.75)	..	521	(25.5)
Grade 3	..	204	(9.57)	..	208	(10.18)
Grade 4	..	109	(5.11)	..	155	(7.58)
Ungraded	..	62	(2.9)	..	38	(1.86)
		<hr/>			<hr/>	
Total	..	2,131			2,043	

In addition to grading the ice cream in accordance with the Ministry of Health Grades, the Counties Public Health Laboratories carried out a plate count, a coliform test and a Bact. coli test. The graphs on page 116 illustrate the improvement in the bacterial quality of ice cream which has taken place since the making of the Ice Cream (Heat Treatment, etc.) Regulations, 1947. Examination of the graphs suggests, however, that the improvement shown by the methylene blue provisional grading is not as great as the improvement shown by the Bact. coli tests and plate counts, and there is in fact more similarity between the methylene blue provisional grading results and the coliform test results. This tends to support the view that whilst the methylene blue test is a simple and convenient test, it may be influenced by factors which are not of pathogenic significance.

Whilst the results analysed on the graphs are insufficient in number to enable a firm conclusion to be arrived at, as 93 per cent. of all samples contained no Bact. coli in 0.1 ml. and as 87 per cent. of all samples gave plate counts of less than 30,000 it appears that it is now reasonable to expect a satisfactory ice cream to be Grade 1 or 2 under the Ministry of Health's Provisional Grading, to contain no Bact. Coli in 0.1 ml. and to have a plate count of less than 30,000. In considering these results it must be remembered that the ice cream sampled most frequently is that which is likely to be unsatisfactory and not that which is likely to be of the highest quality.

FOOD AND DRUGS

The Chief Inspector of Weights and Measures, whose Department is responsible for the execution of the Food and Drugs Acts, 1938-1950, has again kindly provided a report on the work carried out during 1951, as follows :—

During the past year officers of the Weights and Measures Department have carried out a policy of selective sampling throughout that part of the County for which the Essex County Council is the Food and Drugs Authority.

It should be appreciated that mere figures are frequently misleading in giving a picture of the work done. In fact, efficiently planned sampling, supported by a study of those food-stuffs in short supply and reinforced by prosecutions where necessary, renders food and drugs administration as efficient and effective as it is possible to make it. On the other hand, haphazard sampling can be expensive and ineffective.

It is felt that the increasing number of Food and Drugs Authorities within the County of Essex causes considerable duplication of sampling with consequential added expense to the ratepayers. It should be noted that within the geographical County there are at present 15 Food and Drugs Authorities.

The samples taken during 1951 can be divided into two groups ; firstly milk samples and secondly, samples of other food and drugs.

Dealing with the latter group first, it is pleasing to report that of 742 samples taken, only 19 were found to be unsatisfactory. Full details of these 19 samples are now given :—

BROWN BREAD. This sample consisted of several portions of a small brown loaf and was submitted for the purpose of identifying small blackish areas present

on the cut surfaces. Microscopical examination of these discoloured portions showed that they consisted of fragments of discoloured dough and no evidence of the presence of rodent excreta or any other recognisable foreign matter was obtained.

PROTEIN ENRICHED BREAD. Two samples of bread were submitted in order to ascertain whether they complied with the description "Protein Enriched Bread." Analysis showed that the samples contained only 7.50 and 9.92 per cent. respectively of protein whereas the Bread Order requires that protein enriched shall contain not less than 20 per cent. by weight of protein.

FULL CREAM POWDER. Detailed analysis of this sample showed that it consisted not of a full cream milk powder but of a skimmed milk powder. The sample was submitted in connection with an unsatisfactory ice cream which was found to be deficient in fat and it is therefore a possible explanation of the deficiency.

CLOTTED CREAM. Although this sample contained as much as 56.3 per cent. of fat results of detailed analysis of the fat showed that it was derived from goat's milk. The Cream Order 1951, specifies that cream shall consist of the part of cow's milk rich in fat. This sample consisting of a part of goat's milk rich in fat was therefore not properly described as cream.

CREAM. Another sample described as cream, although containing 47 per cent. of fat, was also found to be derived from goat's milk.

FISH PASTE. The Fish Paste Order, 1951, requires that fish paste or spread shall contain a minimum of 70 per cent. of fish. The sample described as Spiced Brisling Paste was found to contain only 35 per cent. of fish and therefore contained only half the quantity of fish required by the above Order.

ICE CREAM. Two samples of ice cream examined during the year were found to be unsatisfactory. One contained only 3.3 per cent. of fat and was therefore deficient in fat to the extent of 35 per cent. of the prescribed minimum of 5 per cent. laid down in the Ice Cream Order and the other was found to be deficient in sugar to the extent of 30 per cent. of the prescribed minimum of 10 per cent.

SAUSAGES. Only one sample of sausages was found to be unsatisfactory. This was a sample of pork sausages found to contain 55 per cent. of meat. The Meat Products and Canned Meat (Control and Maximum Prices) Order, 1948 as amended, requires that pork sausages shall contain 65 per cent. of meat, the sample was therefore deficient in meat to the extent of 10 per cent.

We were unable to substantiate a complaint which alleged that a sample of sausages contained horseflesh. Serological tests carried out on a normal saline extract from these sausages were entirely negative for horseflesh.

SUGAR. This sample was in a damp and lumpy condition and was found to be contaminated with common salt.

SEEDLESS GRAPEFRUIT. This sample consisted of two whole grapefruits and when cut open they were found to contain respectively 38 seeds and 7

seeds. The majority of the seeds being what we should describe as large ones. Both fruits therefore contained a substantial number of large seeds and were not of the seedless type of grapefruit and in our opinion were therefore misdescribed as seedless.

MATTE TEA. A sample sold under the description of tea was found to consist of matte, a species of *ilex* (holly); it was therefore not any species of *thea*, the article which we accept as tea.

SHELLED HAZELNUTS. This sample described as California Finest Hazel Nuts, Shelled was found on examination to include a large proportion of cashew nut kernels, a smaller proportion of ground-nut kernels and the remainder a mixture of large and small nut kernels of the nature of almonds. The sample contained no kernels of the hazel nut (barcelona nut) type or character. The description hazel nuts was therefore false and misleading.

SPONGE FLOUR MIXTURE. Two samples of Sponge Flour Mixture were reported upon as being unsatisfactory, during the year. One sample was found to contain two living maggots and a cocoon, the mixture being out of condition and therefore no longer suitable for human consumption.

The other sample was submitted as the result of a complaint which alleged that a sponge made from the preparation had a peculiar taste. The sample was found to be free from mould growths but both the sponge mixture as sold and also the cooked preparations made from it were found to have a distinctly stale taste. The sample was also deficient in available carbon dioxide, the deficiency in this "raising" ingredient being due to storage. The opinion was expressed that this sponge mixture was out of condition and no longer suitable for human consumption.

SWEET TOBACCO. This confection was found on analysis to consist of a coloured wheaten preparation containing 32 per cent. of sugar. The sample was devoid of coconut flavour and contained no coconut. The list of ingredients given on the packet declared coconut as being the principal ingredient of the mixture and we therefore reported that the label was false and misleading in respect of this declaration of ingredients.

ANTISEPTIC BALM. Two samples of this medicament, one taken informally and the other formally, were objected to on the grounds that neither sample contained any significant amount of zinc oxide whereas the formula given on the labels in each instance declared the preparations to contain 2.5 per cent. of zinc oxide.

Complaints received during the year indicated very forcibly the care which should be taken as regards wrapped bread. Experience has shown that if such bread remains in its sealed wrapper or is placed in an air-tight container, mould growth rapidly develops and consumers have been advised as and when complaints are made of this fact.

Turning now to milk the quality of this foodstuff is a matter of grave concern particularly as it is becoming a more and more important part of the nation's diet. As the law stands at present provided milk is sold as it is given by the cow no offence is committed. Such a state of affairs tends to result in cows being kept which yield large quantities of milk to the detriment of quality. It is not considered that an improvement in this position will be effected until either a minimum legal standard is prescribed or, alternatively, milk is sold on a quality basis.

Of 1,796 samples taken and analysed, 40 were found to have been adulterated with water and 29 were deficient in milk fat. In over 50 per cent. of the "Appeal to Cow" samples drawn, analysis established that the cows were producing milk below their prescribed standard of 3 per cent. fat milk and/or 8.50 per cent. solids not fat.

PROSECUTIONS. A total of 28 cases were taken during the year and fines and costs totalling £170 4s. 0d. were imposed.

RURAL WATER SUPPLIES AND SEWERAGE ACT, 1944

Under Section 2 of the Rural Water Supplies and Sewerage Act, 1944, if the Minister of Housing and Local Government undertakes to make a contribution for either a water or sewage scheme, the County Council concerned is also required to contribute. Consequently, County District Councils must obtain for submission to the Ministry of Housing and Local Government the County Council's observations on all schemes for which applications are to be made for grants.

During the year, the Ministry of Housing and Local Government undertook provisionally to allocate lump sum grants towards the following schemes :—

		Estimated Cost. £		Provisional Grant by Ministry of Housing and Local Government. £
Chelmsford Rural water mains extension	..	3,814	..	1,900
Do.	..	58,436	..	26,000
		(previously £44,212)		(previously £20,000)
Lexden and Winstree Rural sewerage	.. ..	36,100	..	5,000
Lexden and Winstree Rural water mains extension		675	..	80
Tendring Rural sewerage	.. ..	13,530	..	7,500
Braintree Rural water mains extension	..	23,334	..	11,000
Epping Rural sewerage	.. ..	22,075	..	12,500
Lexden and Winstree Rural sewerage	.. ..	79,450	..	25,000
Ongar Rural sewerage and sewage disposal	..	74,000	..	45,000
Braintree Rural sewerage	.. ..	107,193	..	72,000

PUBLIC HEALTH ACT, 1936—SECTION 307

In accordance with the provisions of their approved scheme to give effect to Section 307 of the Public Health Act, 1936, and the provisions of the Rural Water

Supplies and Sewerage Act, 1944, the County Council agreed to make payment of the following amounts, being the approved estimated grants payable in respect of the financial year 1951-52, to the undermentioned Rural District Councils :—

Rural District Council.					Amount.
					£
Braintree	..	..	..	..	5,886
Dunmow	..	..	..	..	3,997
Epping	..	..	..	..	1,612
Halstead	..	..	..	..	1,898
Lexden and Winstree	..	..	..	..	1,597
Ongar ..	..	..	..	..	1,209
Rochford	..	..	..	..	1,841
Saffron Walden	..	..	..	..	3,184
Tendring	..	..	..	..	2,095
Total					<u>£23,319</u>

The following schemes were approved by the County Council for revenue grant purposes during the year under review :—

Braintree Rural	..	..	Northern area sewerage
Epping Rural	..	..	Nazeing sewerage
Lexden and Winstree Rural	..	..	East Stanway sewerage
Do.	..	..	Tiptree sewerage
Do.	..	..	Extensions of water mains—West Bergholt, Easthorpe and Stanway
Do.	..	..	Dedham
Do.	..	..	Birch and Stanway
Do.	..	..	Eight Ash Green
Do.	..	..	Tiptree
Ongar Rural	..	..	Blackmore and Doddington sewerage and sewage disposal
Saffron Walden Rural	..	..	Extensions of water mains — Chrishall, Langley and Little Sampford
Tendring Rural	..	..	Lawford sewerage

Annual inspections of water supply and sewerage schemes in respect of which the County Council makes contributions were carried out in nine Rural Districts during the year. The works were found to be satisfactory in seven of the districts; in one district conditions were found to be unsatisfactory, but have subsequently been rectified; in another district it was considered that the sewage disposal works were not properly managed as required by the County Council and appropriate action is being taken by the Committee.

WATER SUPPLIES

The water supplies in Essex continued to receive considerable attention during the year and, in addition to routine sampling carried out by County District Councils, the

County Council take quarterly samples from the taps required to be provided by statute by the four large Water Companies, namely, Herts and Essex, Southern Essex and Tendring. The samples have all been satisfactory. Thirty-nine visits have also been made to various waterworks in the County.

During the year, petitions from ratepayers under Section 28 of the Water Act 1945, in the Benfleet and Billericay Urban Districts were the subject of local Enquiries before an Inspector of the Ministry of Housing and Local Government.

Owing to the gradual fall in the water table in Essex, the sinking of new boreholes is controlled by the Underground Water (Controlled Areas) Regulations, 1949, which cover the entire County and make it necessary to obtain a licence from the Ministry of Housing and Local Government before new wells can be sunk for many purposes. The County Council submitted observations at Enquiries in connection with four applications for licences; two of the applications were refused by the Minister and the other two applications were agreed subject to a reduction in the quantity of water to be abstracted.

During the year the Herts and Essex Waterworks Co., Ltd., promoted an Order to abstract additional quantities of water from their works at Sawbridgeworth; the opportunity was taken to secure an amendment of the clause in the Herts and Essex Water Act, 1944, so as to provide for the softening of the water when circumstances permit.

SEWAGE WORKS AND RIVERS POLLUTION

Sewage Works

During the year, 567 visits were made in connection with routine inspections of sewage disposal works and investigations of rivers pollution; 332 samples were taken and the results obtained revealed that 185 or 55.7 per cent. were unsatisfactory as compared with 45 per cent. in 1950. The reason for the increasing percentage of successful samples is that some economy has been effected in the sampling of effluents from well managed sewage disposal works and greater effort has been concentrated upon the improvement of unsatisfactory conditions. Copies of all reports on samples are supplied to the County District Councils or to the private firms concerned and observations are asked for in unsatisfactory cases.

Continuing action has been taken to secure improvements at the sewage disposal works at Dunmow, Thaxted, Halstead, Coggeshall, Braintree, Epping (Southern Essex), Dedham, Kelvedon, Hatfield Peverel, Ramsey, Weeley and Ardleigh amongst others.

Discussions took place with regard to sewerage and sewage disposal at the New Town of Basildon. It is now proposed to drain the town by gravity to a proposed new sewage disposal works at Framptons Farm, Nevendon, from which the treated effluent will be discharged by gravity to the Thames estuary in the vicinity of Pitsea.

Rivers Pollution

Pollution surveys of the rivers Colne, Roding and Ramsey were carried out.

In the case of the River Roding the water was reasonably clean from the source of the river down to the Chigwell (Luxborough) Sewage Works, where considerable

pollution occurred and where the sewage disposal works are in course of reconstruction. Below the Chigwell (Luxborough) Sewage Works the Woodford Eastern and Woodford Southern Sewage Works discharge into this river with the result that in periods of dry weather it is probable that the greater part of the flow in the river is made up of sewage effluent. Despite this, the non-tidal portions of the river have not given rise to any nuisance and when the works at Chigwell are completed conditions should be considerably improved. Schemes are under consideration or in hand for the improvement of several sewage outfalls on the River Roding.

The condition of the Colne was found to be satisfactory for the greater part of the length of the river. A number of unsatisfactory effluents were found to be discharging into the river and action is being taken to improve or abolish these effluents.

Complaints were received regarding the condition of the River Ramsey, which, until last year, was being seriously polluted by a sewage outfall of the Harwich Borough Council. Samples taken from the river in its lower regions showed that the condition of the river water was satisfactory, new sewage works having been constructed at Dovercourt. There are still some unsatisfactory effluents discharging into this small river or into ditches leading to it. The Tendring Rural District Council have submitted to the Ministry of Housing and Local Government a scheme for the re-sewering of the village of Ramsey where the existing village tank is unsatisfactory. Small improvements have been agreed with the Surveyor of the Tendring Rural District Council for the improvement of three sewage works in the vicinity of Great Oakley village.

Investigations were made into the following river pollutions :—

- (a) River Rom—by pea vining plant (suspected).
- (b) River Ter— (i) by storm overflow from a sewage pumping station.
(ii) by drainage from a dairy at Hatfield Peverel.
(iii) by drainage from mobile pea vining plants.
- (c) River Chelmer and Stebbing Brook—by a beet sugar factory.
- (d) Tidal Waters of the River Stour by oil at Mistley.
- (e) River Colne—by waste liquids from disused gas works at Halstead (accidental).
- (f) River Blackwater— (i) by gravel washings at Bocking.
(ii) by factory effluents, Witham.
- (g) River Pant—by untreated effluent discharged from airfield sewer.
- (h) Chelmer and Blackwater Canal at Heybridge—by oil.
- (i) River Brain—by various effluents at Braintree.

The rivers Chelmer and Blackwater and their tributaries have been given special attention owing to these rivers being used as sources of public water supply ; constant vigilance is needed to prevent a deterioration in the quality of the water in these rivers. Schemes for the modernisation of sewage disposal works are needed in many places, and there are many sewage disposal works in the County which are over-loaded, although with careful management certain of these produce satisfactory results. It is quite certain that without any large capital expenditure many effluents could be substantially improved by more skilled attention to the works.

A small investigation has been made into the efficacy of supplementing the normal treatment of sewage by sand filtration, and the following results from the Epping Upland sewage disposal works illustrate that a great improvement can be achieved :—

		Effluent before sand filtration.		Effluent after sand filtration.
Suspended matter	.. ..	24	..	Less than 10
Impurity figure (grains per gallon)	.. ..	6.9	..	4.1
Biochemical Oxygen Demand	.. ..	8	..	2
Bact. Coli (Type I)—probable No. per 100 ml.	.. ..	25,000,000	..	250,000

The addition of a sand filter at a sewage works adds to the maintenance which is required, but the sand filtration of effluent appears to be a practical proposition. It may be necessary in the near future to require the sand filtration of effluents which are being discharged into rivers from which water is drawn for public water supplies.

During the year it was noted that many of the sewage works for Council houses (built to Ministry of Housing and Local Government standards) gave unsatisfactory effluents.

REFUSE DISPOSAL

“ Except in three instances the dumps are thoroughly insanitary, some of them are huge and quite the worst in England.” So wrote J. C. Dawes, Esq., O.B.E., M.I. Mech. Eng., Ministry of Health Inspector of Public Cleansing, of the London refuse dumps, the greater number of which are in Essex, in his report on an investigation in 1929 into the Public Cleansing Service in the Administrative County of London. His report proceeds to illustrate several of the huge refuse dumps on the Thames side which were on fire, uncovered, offensive and rat infested eyesores.

Happily, such a description cannot be applied to the Essex Thames side refuse dumps to-day, which are controlled by powers conferred by the Essex County Council Act, 1933. Each year something approaching one million tons of refuse is brought from London and disposed of by controlled tipping on the Essex marshes. The number of refuse dumps in the County supervised by the staff of the Department is 31 and, apart from very minor and isolated occurrences, the refuse is properly levelled, consolidated and covered; there are no rats, no fires and very little nuisance is caused. These results have only been achieved by years of constant vigilance; during the past year 254 visits were made by officers of the Department.

RURAL HOUSING

The Joint Advisory Committee on Rural Housing, which held its first meeting in 1944, met twice during the year. Important matters discussed were (a) the provision of electricity supplies by the Eastern Electricity Board to housing estates; (b) house building costs and standards of accommodation (including the specifications required for housing estate roads); and (c) the reconditioning and repair of houses in rural Essex.

A report considered by the Committee summarises the state of existing houses which have been surveyed in Essex as follows :—

	No.	Percentage of total surveyed.
Category 1—Satisfactory in all respects ..	12,711	25.5
Category 2—With minor defects only ..	17,233	35
Category 3—Requiring repair, structural alteration or improvement ..	11,722	24
Category 4—Appropriate for reconditioning ..	2,953	6
Category 5—Unfit for habitation and beyond repair at reasonable expense ..	4,651	9.5

THE COUNTY AMBULANCE SERVICE

The demand for ambulance transport continued to increase steadily throughout 1951 and only by the most strenuous efforts was it possible for the service to carry out its statutory obligations.

It was felt that after the large increase in patients carried during 1950 there would be some levelling out in the demands for transport. Unfortunately this was not so. The number of patients removed by the County Ambulance Service during the year was 314,592, an increase of 23.6 per cent.

The increases in the price of petrol, lubricants, tyres and repairs has resulted in an increased financial burden on the service.

Vehicles

During the year 23 sitting-case vehicles of a new type and 11 ambulances were put into service. At the end of the year there were in service 92 ambulances and 40 sitting-case vehicles of various types.

The new type sitting-case vehicle has more than proved its worth. As an example of its capabilities, 9,488 patients were conveyed by 17 of these vehicles during the month of November.

Because of their age and the consequent high cost of maintenance a number of ambulances will be transferred to reserve for Civil Defence training purposes as soon as new ambulances now on order are delivered.

It will be appreciated that a proportion of the vehicle strength is always non-operational because of day-to-day maintenance service and repairs.

The Hospital Car Service has approximately 200 cars operationally employed.

Premises

Owing to the lack of suitable alternative accommodation, the difficulties in acquiring suitable sites and the need for economy in capital expenditure, little material progress has been made in providing adequate accommodation for personnel and vehicles.

Meetings have taken place with representatives of the Borough Councils of Barking and Dagenham and the Urban District Council of Chigwell. The original site proposed by the Romford Borough Council was, on inspection, found to be unsuitable for the construction of a main Ambulance Station. An alternative site is now being surveyed

Sites have been inspected and plans drawn up for new Ambulance Stations at Chelmsford and Epping. Negotiations are almost completed for the conversion of a part of the old smallpox hospital at Thurrock into an Ambulance Station. Preliminary talks have taken place with the Development Corporations of the new towns of Basildon and Harlow, and at Saffron Walden the old Fire Station will be modified for use as an Ambulance Station.

Re-organisation of the Service

The scheme for the reorganisation of the service, which provides for a revised establishment of staff and vehicles and the siting of new Ambulance Stations to meet the constantly increasing demand for transport and to cover new centres of population at Aveley, Chingford, Harold Hill, Hainault, Basildon and Harlow, had not received the approval of the Minister of Health at the end of 1951.

Staff

Mr. N. F. W. Mason took up his duties as Assistant County Ambulance Officer in September, 1951, in the place of Mr. S. Tomlinson, who resigned to take an appointment with the Kent County Council.

The recruitment of ambulance driver/attendants continued slowly throughout the year, but at the end of the year there was still a deficiency of 50 drivers on the establishment.

Safe driving certificates were issued to 230 drivers during the year; four drivers received a five-years' medal, four received bars to their five-years' medal and two men received ten-year medals.

Communications

The installation of radio-telephone equipment in ambulances and the main transmitters and auxiliary equipment was nearly complete by the end of the year. Premises were obtained for conversion into a Central Control Room and another Control Room for handling all ambulance calls in the south-west of the County came into operation in August. Emergency calls in the area are routed into this Control.

Statistics

The graphs on page 117 depict the monthly total of patients carried, mileage and the average number of miles per patient. They show very clearly the steady increase in the demand for ambulance transport since the inception of the service on the 5th July, 1948. The total number of patients carried during the year 1951 was 314,592 as compared with 254,549 in 1950 and the mileage run was 2,595,435 and 2,361,774 miles respectively. An analysis of the year's work discloses that 11,405 accident cases were conveyed to hospital, an increase of 8.5 per cent. over the previous year, but the largest increase was in the conveyance of non-emergency cases, i.e. hospital admissions, discharges and inter-hospital transfers and out-patients, 265,912 patients having been dealt with as against 206,932 in 1950, an increase of 28.5 per cent.

Hospital Car Service

The arrangements with the Hospital Car Service for the conveyance of sitting cases to and from hospital continued throughout the year and 39,992 patients were carried over a mileage of 1,004,904. This was a decrease in patients of 4.6 per cent. and in mileage 15.2 per cent.

Voluntary Organisations

I am happy to report that throughout the year the County Ambulance Service has enjoyed the full co-operation of the British Red Cross Society, the Order of St. John of Jerusalem and the Hospital Car Service.

INTEGRATION OF THE HEALTH SERVICES

During the year under review one meeting was held of the National Health Service Joint Advisory Committee for the County of Essex, to the establishment of which reference was made in the report for the year 1950. Consideration was given to a report setting out suggestions in regard to the economical use of ambulance vehicles, which, as a result was placed before the North-East Metropolitan Regional Hospital Board and transmitted by them to Hospital Management Committees. The Committee also gave consideration to the list of sites which the County Planning Committee had been asked to allocate or reserve in the County Development Plan for Health Services purposes. As a result of information on the subject which was placed before the Committee, instructions were given for the North-East Metropolitan Regional Hospital Board to be apprised of the details of information required by the County Council, as Local Health Authority, relating to persons discharged from hospital in connection with the provision of after-care services, so that they might forward it to Hospital Management Committees.

Although frequent meetings of this Committee have not been found to be necessary, there is no doubt that it serves a very useful purpose in bringing together the three branches of the service so far as the County of Essex is concerned.

Towards the end of the year arrangements were in hand for holding a joint meeting of Area Medical Officers and Chest Physicians in order to discuss a number of problems of mutual interest.

DECENTRALISATION OF ADMINISTRATION

Four conferences with Area Medical Officers were held during 1951. Consideration was given to such matters as the respective duties of tuberculosis nurses and tuberculosis social workers; the incidence of measles and whooping cough in the County; the furnishing of vaccination and immunisation records by Medical Officers of Hospitals; the possibility of providing statistics by means of the machine accounting system; the arrangements for the supervision of the work of tuberculosis nurses; and the care of the aged and the aged sick, in addition to a very large number of other matters of minor importance.

CIVIL DEFENCE

Further substantial progress was made in formulating plans for an expanded Ambulance Service in the event of an emergency arising, and, in addition, a start was made with the training of volunteers.

The Essex Division of the Civil Defence Corps, which embraces the whole of the Administrative County, is being organised in sixteen Sub-Divisions and, after negotiation, agreement was reached with all County District Councils regarding the delegation of Civil Defence functions. As a result, it was possible to appoint a Medical Officer in charge of the Ambulance Section of each of these Sub-Divisions who will be responsible, should the need arise, to the County Medical Officer of Health for Ambulance Section training of personnel as well as under the direction of the Sub-Divisional Controller for the operational control of the war-time Ambulance Service.

It has been agreed in principle that the number of ambulances in time of war should be four times the peace-time establishment and the number of sitting-cassette vehicles one-third the augmented ambulance strength, the total number of whole-time personnel (or their equivalent) being calculated in accordance with the suggestions made by the Ministry of Health. A Draft Operational Plan for the disposition of the expanded Ambulance Service (based on the recommendations of the Ministry of Health) was included in the Progress Report up to 30th June, 1951.

With regard to Ambulance Section training, authority was given for selected supervisors of ambulance stations and head drivers to undertake certain of the lectures in the syllabus, and to their being paid for such duties. Peace-time ambulance vehicles have, subject to the exigencies of the service, been made available for training purposes.

The number of volunteers who had enrolled in the Ambulance Section of the Civil Defence Corps by the end of the year was 687 (288 men and 399 women).

A conference was held with representatives of the North-East Metropolitan Regional Hospital Board in regard to the duties of local authorities in relation to (a) the Casualty Services and (b) Public Health in time of war. A preliminary survey was also undertaken in regard to the medical arrangements for the evacuation of the priority classes.

SECTION III—CARE OF MOTHERS AND YOUNG CHILDREN

THE services available in connection with the Care of Mothers and Young Children have been continued on the lines previously reported and the existing schemes have in general only required variations of a minor character.

A fresh field of interest for the Child Health Service has been opened up during the year by arrangements in certain areas of the County for special liaison between Assistant County Medical Officers and hospital pædiatricians and Health Visitors and hospital nursing staffs respectively.

Particular attention has been given to the question of the provision of Day Nurseries, and at the close of the year a comprehensive report making reference to priorities for admission, staffing and comparative costs was still under consideration.

Details in regard to each of the services provided are given below.

Child Welfare Centres

During the past half-century the child welfare centre has become a firmly established asset in the life of the community, the main impetus for this having been provided in the Maternity and Child Welfare Act of 1918. The rapid increase in the provision of these centres, usually as a result of public demand, has been most remarkable everywhere, and is adequate testimony to their popularity among mothers with young children.

The main purpose of the child welfare centre still is, and must continue to be, health education, with special emphasis on promoting the health and welfare of young children under five years of age.

There is also the social side of the centre's function, providing as it does a regular meeting-place where mothers can get together with their young children and discuss matters of mutual interest. Few would deny that this social aspect of the centre must also, in a variety of ways, have a beneficial influence in encouraging mothers to take a personal pride in putting into practice the knowledge acquired at the centre.

Following the introduction of the National Health Service in 1948, there were those who thought that voluntary workers at child welfare centres would no longer be willing to offer their services in a voluntary capacity, feeling perhaps that in these days of the welfare state voluntary effort had become out of date and no longer necessary. Happily, however, such predictions proved to be quite wrong. Voluntary workers are continuing to play a most valuable and important part in the organisation of the centres. Indeed, it is true to say that many of the smaller centres in remote rural areas would find it extremely difficult to carry on at all if it were not for the devoted services of these workers who give so generously of their time and energy in the interests of the mothers and young children.

In the Boroughs and other highly urbanised parts of the County the child welfare centre is usually to be found established in *ad hoc* Clinic premises which include also accommodation for various other facilities, such as ante-natal, post-natal, school and dental clinics, etc. Where no such premises are available the centre has to be established in hired premises of suitable type. These are usually church halls, village halls,

women's institutes, etc. Most of them provide reasonably satisfactory accommodation for a child welfare centre; it has to be admitted however there are some which leave much to be desired, but there is often no alternative to be found.

At the 230 centres which were effective during the year, 9,929 sessions were held and 56,453 children attended. In addition, 12 weighing centres were functioning at the end of the year. Variations which occurred during the year in the number of centres and sessions were as follows :—

NEW CENTRES.

<i>North-East Essex</i>	..	Labour Club, London Road, Stanway (Marks Tey C.W.C.).
<i>Mid-Essex</i>	..	Village Hall, Althorne. Village Hall, High Ongar. Village Hall, Tolleshunt D'Arcy.
<i>Forest</i>	..	Rochford Avenue, Debden Estate, Loughton.
<i>Romford</i>	..	Community Hall, Gooshays Drive, Harold Hill.
<i>Dagenham</i>	..	Eastbrook Clinic, London City Mission Hall, Dagenham Road, Dagenham.
<i>Ilford</i>	..	Essex County Health Services Clinic, Manford Way, Hainault.
<i>Leyton</i>	..	Essex County Health Services Clinic, Dawlish Road, Leyton, E.10.

CENTRES DISCONTINUED.

<i>North-East Essex</i>	..	Old Schoolroom, London Road, Stanway (Stanway C.W.C.).
<i>Ilford</i>	..	30-32, Elmbridge Road, Hainault.

INCREASED SESSIONS.

<i>South-East</i>	..	South Benfleet. Two sessions monthly increased to weekly sessions.
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Co-operation between Hospital Paediatric Departments and Medical Staff of the Local Health Authority

The County Council's Proposals under Section 22 of the National Health Service Act, 1946, provide for liaison with Regional Hospital Boards so as to ensure the closest integration of the Health Authority's services with the Hospital and Specialist services.

During the year experimental arrangements, as detailed below, were put into operation in four Areas of the County as a means of implementing the above-mentioned liaison proposals :—

Mid-Essex

(a) Two assistant medical officers were allocated to the Chelmsford and Essex Hospital and St. John's Hospital for sessional work at the hospitals.

(b) One assistant medical officer was allocated to the Haymeads Hospital, Bishop's Stortford, to undertake ward rounds, etc., with the Hospital Paediatrician on the first and third Wednesdays of each month.

Romford

During the year an assistant medical officer attended at Oldchurch Hospital, Romford, in the capacity of a Clinical Assistant (Honorary) and accompanied the Pædiatrician on his ward rounds and at the out-patients' department.

Leyton

An assistant medical officer attended the Pædiatric Department of the Whipps Cross Hospital, Leytonstone, on Tuesday afternoons and two health visitors attended singly on Monday and Thursday mornings respectively.

At the end of the first six months following the commencement of these arrangements Dr. Ethel R. Emslie, one of the officers concerned, submitted her observations, and these are given below :—

“ Two Health Visitors in turn accompany the Consultant Physician during his ward rounds in the wards for under fives.

I am in no doubt about the importance of this link from the point of view of both partners in the arrangement. There is a two-way traffic of valuable information which would not otherwise occur.

With regard to my own attendance at Out-patients I do feel that the liaison is well worth while. I see many Leyton children who never reach the wards and again I am sure that the co-operation is valuable.

From my own personal point of view, it is a great benefit and privilege to be in touch with the Children's Department of a Hospital. I thank the Committee gratefully for giving me this opportunity of observing modern developments and trends in disease and in its prevention and treatment. The modern Pædiatrician is concerned with the prevention and cure, and there is no exact dividing line. We are all concerned in the same service, and the Health Act was no doubt right in encouraging development of the two branches together, rather than as two separate and unrelated entities.”

Walthamstow

Health Visitors attend on a rota system the ward rounds of the Pædiatrician at the Whipps Cross Hospital, Leytonstone, on two sessions per week and this arrangement ensures that the advice given in hospital is carefully followed in the home as far as practicable.

South Essex

Negotiations were in progress with a view to the attendance of selected assistant medical officers to accompany the Pædiatrician on his ward rounds at certain hospitals in the Area.

In all the above-mentioned Areas the arrangements operated during 1951 have been mainly experimental, and in the light of the experience so gained the arrangements will be extended where possible to other hospitals and to include the staffs of other Health Areas.

Ministry of Food—Distribution of Vitamin Preparations

The following quantities of vitamins were supplied by the Ministry of Food in the Administrative County during the year, and the usual facilities were afforded to Mothers who wished to obtain supplies of the vitamins whilst attending at Child Welfare Centres and Ante-Natal Clinics :—

Orange Juice (Vitamin C)	..	..	2,072,583 bottles
Cod Liver Oil (Vitamins A and D)	..	..	651,191 bottles
Vitamins A and D Tablets	..	..	105,531 packets

County Medicament and Nutrient Scheme

Patients attending the Council's Clinics or Child Welfare Centres continued to be supplied with approved medicaments free and nutrients at reduced prices from stocks held at the Clinics or, alternatively, were provided with a voucher signed by a medical officer which enabled them to obtain supplies on similar terms from local chemists.

Enuresis

Towards the end of the year a special clinic was established at Ilford to deal with children suffering from nocturnal enuresis. The clinic will be continued for an experimental period of one year in the first instance and a detailed report on its working will be available for inclusion in the report for the year 1952.

Dental Treatment and Dentures

A full report by the Chief Dental Officer on the County Dental Service appears on page 63. The following statistics relate to dental treatment provided during the year for mothers and young children :—

				<i>Expectant Mothers</i>	<i>Nursing Mothers</i>	<i>Children under 5 years of age</i>
(a)	Patients examined	..	..	1,663	729	3,845
(b)	Patients needing treatment	..	..	1,523	637	3,624
(c)	Patients treated	..	..	1,543	703	3,718
(d)	Patients who completed treatment	..	..	1,292	561	2,977
(e)	Extractions—			2,689	1,026	37
	(i) permanent teeth	..	..	—	—	4,178
	(ii) temporary teeth	..	..	
(f)	Fillings—			1,469	657	11
	(i) permanent teeth	..	..	—	—	2,184
	(ii) temporary teeth	..	..	
(g)	Inlays provided	..	..	—	—	—
(h)	Crowns provided	..	..	—	—	—
(i)	Anæsthetics administered—			196	108	133
	(i) local	..	..	789	254	2,102
	(ii) general	..	..	
(j)	(i) Scaling	..	..	486	143	22
	(ii) Prolonged scaling and gum treatment	..	..	148	64	34
(k)	Silver Nitrate treatment	..	..	16	13	2,447
(l)	Dressings	..	..	526	286	1,004
(m)	X-ray examinations	..	..	41	20	12

					<i>Expectant Mothers</i>	<i>Nursing Mothers</i>	<i>Children under 5 years of age</i>
(n)	Dentures provided—						
	(i)	full	..	..	72	133	—
	(ii)	partial	..	..	113	136	—
(o)	Dentures repaired ..				10	22	—
(p)	Dentures remade—						
	(i)	full	..	..	1	2	—
	(ii)	partial	..	..	1	1	—
(q)	Orthodontic appliances—						
	(i)	fixed	..	..	—	—	—
	(ii)	moveable	..	..	—	—	—
(r)	Patients awaiting treatment ..				73	23	71

Orthopaedic Treatment

The County Council continued to provide premises, equipment and physiotherapists for the purposes of the orthopaedic scheme, the services of Orthopaedic Surgeons being arranged by the Regional Hospital Boards concerned. The negotiations for the transfer of the Specialist Clinics referred to in the Report for 1950 have proceeded during the year and as a result it is anticipated that as from 1st April, 1952, the Boards will take over from the County Council full responsibility for the Orthopaedic Service, including the employment of physiotherapists; the clinic premises and non-specialist equipment therein continuing to be provided by the County Council subject to satisfactory financial arrangements being made.

During the year 220 Ascertainment Clinic Sessions were held and 2,080 visits were made by children under five years of age who were seen by the surgeons in attendance. Sixteen of these children received hospital in-patient treatment.

Thirty-four After-Treatment Clinics were in operation during the year and 2,381 children attended.

Day Nurseries

It was indicated in last year's Report that 19 of the Council's Day Nurseries were approved by the Ministry of Health as training nurseries. As a result of visits made by inspectors of the Ministries of Health and Education during 1951, provisional approval was granted in respect of the Rippleside Nursery, Barking, and the Handsworth Avenue Nursery, Walthamstow. The Green Lane Nursery, Seven Kings, an approved nursery, was closed on 9th November, 1951, and replaced by the Goodmayes Lane Day Nursery on 14th November, 1951. It is hoped that this new nursery and the Hulse Avenue Nursery, Romford, both of which have been visited by the Ministries' inspectors will receive formal approval as training nurseries early in 1952. The Day Nursery in North Street, Hornchurch, was closed during the year, mainly in view of the unsatisfactory condition of the premises.

The number of day nurseries at the end of the year was thus reduced to 33 (20 of which were approved as training nurseries), providing a total of 1,568 approved places for children between 0-5 years.

An outbreak of Bacillary Dysentery (Sonne) occurred during the year at the two nurseries in Walthamstow and a mild outbreak occurred at the Knotts Green Nursery, Leyton. The usual precautionary measures were taken and at Walthamstow succinylsulphathiazole was administered to all members of the staff and, with the consent of the parents, to all the children remaining in attendance at the nurseries. It was possible for the two nurseries in Walthamstow to revert to normal attendance within four weeks of the outbreak.

The daily charge for children attending nurseries was increased from 1/6d. to 2d. per child as from 1st January, 1952.

Nurseries and Child-Minders Regulation Act, 1948

At the end of 1951 the following premises and daily minders were registered with the Council in accordance with the requirements of the Act, and, for purposes of comparison, similar figures are given for the previous year :—

	Number registered at 31-12-50		Number registered at 31-12-51		Number of children provided for at 31-12-50		Number of children provided for at 31-12-51	
Premises	..	5	..	9	..	131	..	193
Daily Minders	..	40	..	30	..	173	..	132

Daily Guardians Scheme

Prior to the inception of the National Health Service Act, 1946, schemes for the provision of registered daily guardians were in operation in the Boroughs of Dagenham and Wanstead and Woodford. Arising from a recommendation for the establishment of a similar scheme in Walthamstow, the opportunity was taken to evolve a uniform scheme for application to all Areas of the County. This scheme, which was adopted by the Council, is governed by the following conditions :—

1. Mothers who are working outside their homes or who desire to undertake such work and have a child or children under five years of age not in attendance at school may apply to the County Council for the services of a registered Guardian.

2. The mother will be expected to pay the Guardian for the care of the child(ren) an amount to be mutually agreed between them.

3. The mother should supply sufficient clothing, etc., to keep the child(ren) warm and the feet dry and should see that the child(ren) is (are) taken to the Guardian's home in a clean condition.

4. The mother is responsible for the care of the child(ren) in case of illness. She is therefore, required to give the Guardian the address of her place of employment and the name of the doctor to be summoned in case of emergency.

5. The mother or some other responsible person will be required to sign each week a form provided by the County Council, showing the days and times during which the child(ren) has (have) been cared for by the Guardian.

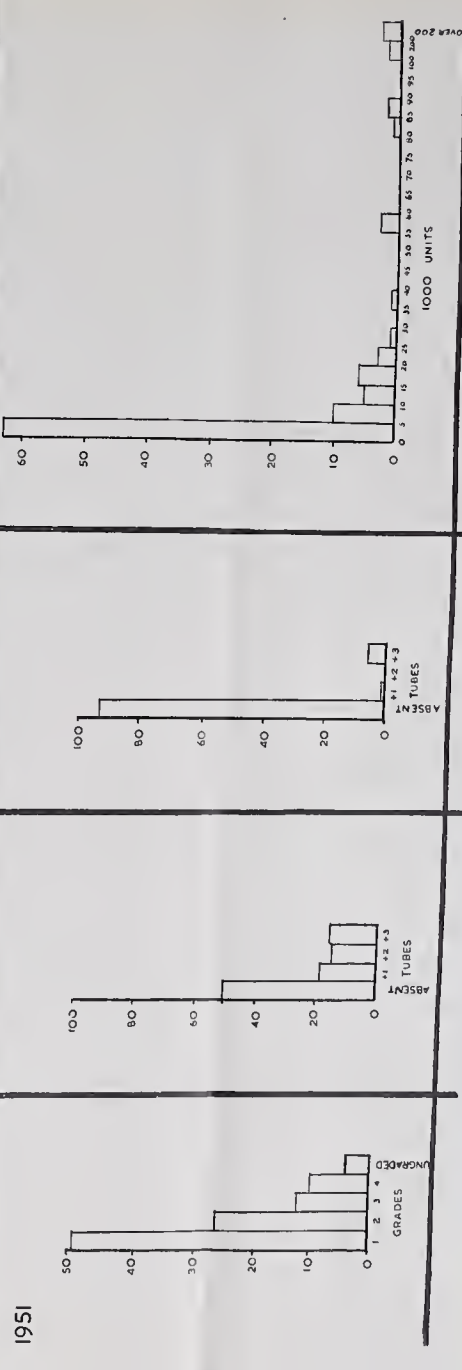
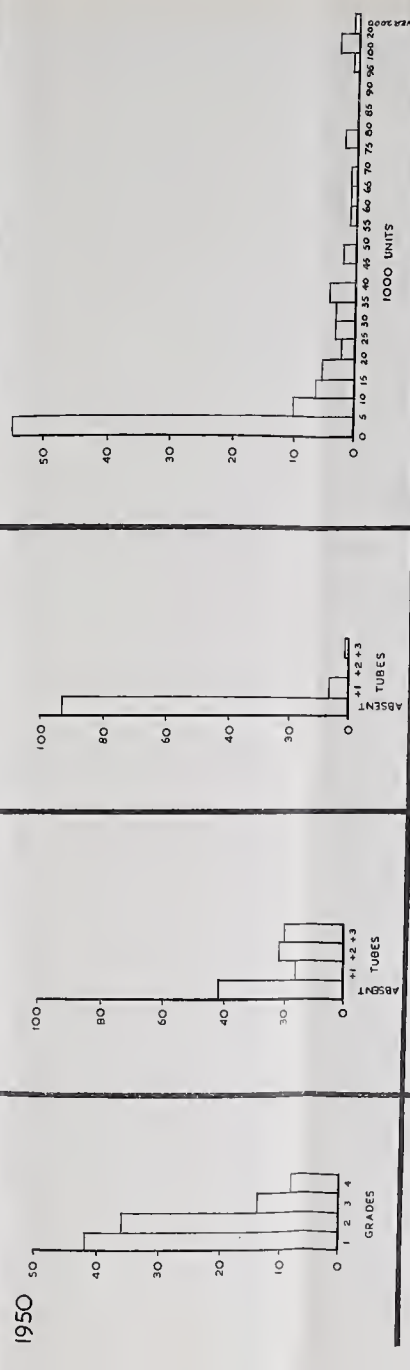
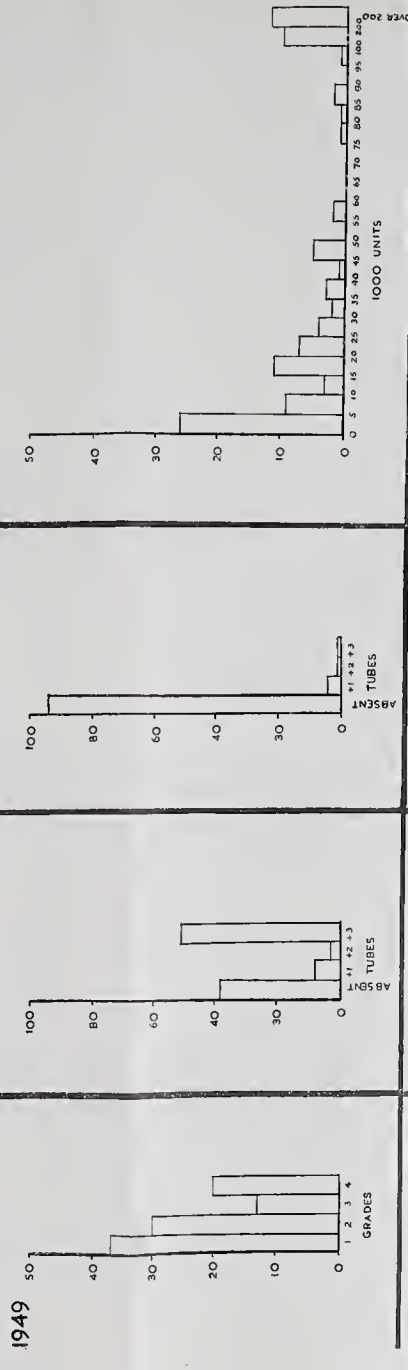
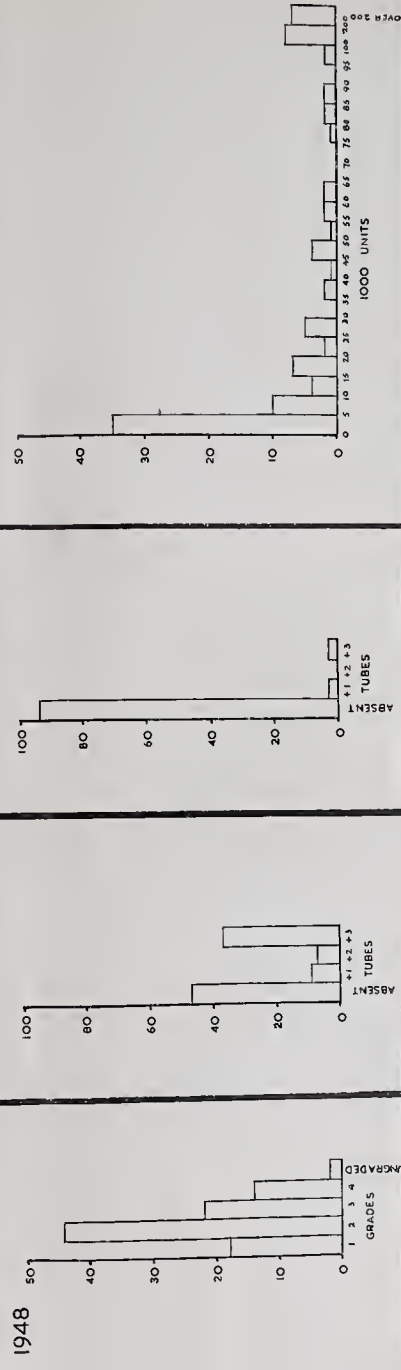
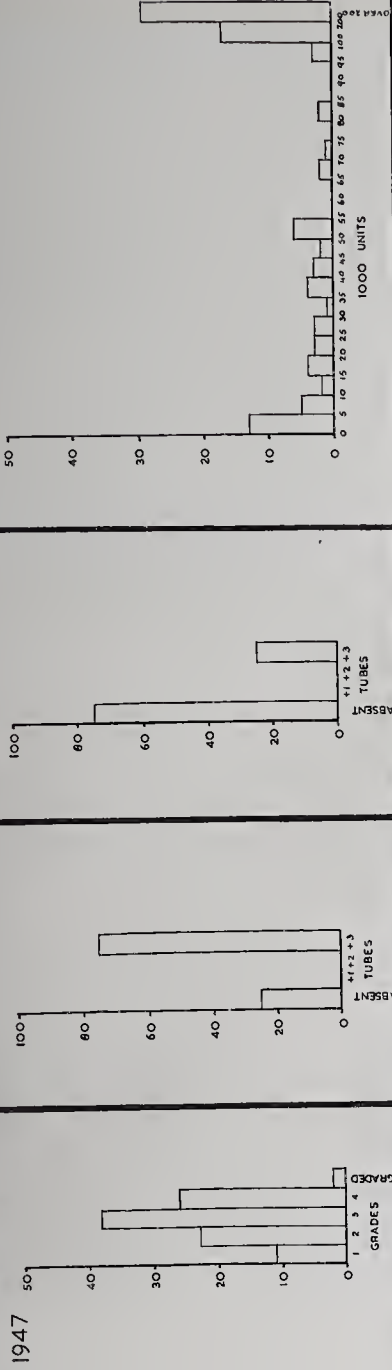
6. The Guardian will be a person approved for the purpose by the County Council. She will care for the child(ren) in her own home during the day only. She must ensure that any child(ren) in her care is (are) kept clean, given suitable food and is (are) cared for

ICE-CREAM

100 EXAMINATION RESULTS (TAKEN AT RANDOM) ON SAMPLES OBTAINED DURING JULY & AUGUST

FOR EACH OF THE YEARS 1947-1951

PLATE COUNT



accordance with the advice received from the Welfare Centre and from the Health Visitor. Where possible and where the mother of the child(ren) agrees, endeavours should be made by the Guardian to take any child in her care to a Child Welfare Centre at least once a month and she must carry out the directions and advice given at that Centre; any expense which may be incurred by the Guardian in respect of the supply of nutriment, etc., will be the responsibility of the mother.

7. A registered Guardian will be paid by the County Council 1/- per day per child for each day on which she is caring for the child(ren). Payment for a half-day will be 6d. per child.

8. The Guardian will be required to prepare suitable and adequate meals for the child(ren) whilst in her care. The mother should supply rationed foods.

9. The Guardian must not take into her care more children than she has been authorised to receive. The maximum is two.

10. The Guardian must arrange for adequate fire guards to be provided in all rooms used by the child(ren) and for windows in such rooms to be protected where necessary.

11. The Guardian must obtain from the mother the address of her place of employment and the name of the doctor to be summoned in case of serious illness or accident to the child(ren). In the event of such illness or accident occurring the Guardian must immediately summon the doctor named by the mother or, if not available, some other doctor and notify the mother and the Area Medical Officer.

12. Any child(ren) placed in the Guardian's care must never be left in the house alone. In the event of temporary absence, the child(ren) must be placed in the care of a responsible person.

13. The Guardian must notify the Area Medical Officer at once if there is any infection in her house, or if any child in her care appears ill or contracts any infectious condition.

14. At the end of each week the Guardian must hand to each mother or other responsible person collecting a child or children the form provided by the Council and ensure that it is signed by the mother or other responsible person. This form duly completed must be delivered by the Guardian to the Area Medical Officer on of any week.

15. The Guardian must not when caring for a child or children undertake any other employment and must give the whole of her time to the management of her home and to the child(ren) in her care.

16. Both parties must notify the Area Medical Officer of any child who has been withdrawn or is about to be withdrawn from the Guardian's care, if possible giving three days' prior notice.

17. Failure to comply with the conditions may result in the registration of the Guardian being cancelled.

NOTES—

The term "mother" shall include any other person having the custody of a child or children under five years of age not in attendance at school.

This scheme was subsequently adopted in the Walthamstow Health Area, but the response to the initial advertisement of the scheme was very limited, only two applications being received from mothers who wished their children to be cared for whilst twelve applications were received from persons willing to act as daily guardians.

The number of daily guardians registered at the end of the year and the number of children being cared for throughout the County is given below :—

Number of Registered Daily Guardians	..	..	198
Number of Children being cared for	..	..	129

Health Visiting

The Health Visitor's work continues to develop through opportunities which occur in connection with the expansion of the field of activities provided under the National Health Service Act, 1946. It is evident, however, that in some areas of the County this development is more marked than in others.

At the end of the year there were 166 Health Visitors in the County. Of these, 149 were undertaking the combined duties of Health Visitor, School Nurse and Tuberculosis Visitor as compared with 156 and 138 in 1950 and 146 and 132 in 1949. (In addition there are 49 School Nurses and 21 Tuberculosis Visitors.)

Health Visitors continue to carry out Tuberculosis Visiting and are in close liaison with the Chest Physicians. In some areas the Chest Physicians now see the Health Visitors at regular intervals by appointment monthly or more frequently and in between these appointments as required in specific cases. The value of these regular conferences is immense as all matters concerning particular families are discussed and the Health Visitor is fully aware of the cases where contact examination is complete and up to date where she should strongly advise B.C.G., and where the round-up of contacts is necessary. She can also report to the Chest Physician on all domiciliary cases in her area and discuss problems of a social nature which appertain to such cases. Also, she can advise on the home conditions of patients awaiting admission to hospital or who are about to be discharged.

The attendance of Health Visitors at Tuberculosis After-Care Committee meetings is increasing. Again, her knowledge of family needs and confirmation of social circumstances is welcomed by the committees. More and more Almoners of hospitals are seeking detailed reports from Health Visitors in respect of social and home conditions regarding patients ready for discharge from hospital. They seek too for follow-up reports from Health Visitors on such cases. Here, again, the need is emphasised for a Health Visitor to be a *Home* Visitor and to free herself or be freed from encroachment upon the amount of time available for home visiting. The modern Health Visitor is not a clinic nurse and fixed sessions for clinics or medical inspections, etc., should be limited.

Health Visitors continue to teach and lecture in schools and to adult groups. The British Red Cross Society, Mothers' Clubs, Parent-Teacher Associations, Women's Institutes and other organisations request the services of a Health Visitor to lecture or take part in brains trusts or discussions. There is considerable material available on loan from the Department for the use of the Health Visitor and advice from the Health Education Organiser is more and more in demand by Health Visitors who are teaching and lecturing.

The expansion of the student health visitors' course from six months to an academic year has fully justified itself. It has allowed for the development of educationally sound training with a complete correlation of theory and practice, and made a much wider basis possible. The importance of planning the course to meet the real needs of the future Health Visitor rather than as a means to the passing of an examination cannot be over stressed. Knowledge of a detailed nature covering a very varied field is essential, but unless facilities are given for the development of true understanding, preparation of heart as well as mind, the student is likely to fail in its application.

Right attitudes in the student, and the ability to make and keep good relationships, are essential, and this calls for very careful initial selection. Academic ability is important, but it is very much more easily judged than emotional maturity. The number of candidates applying for the ten County places has remained reasonably high, and we have been very happy in our choice.

All the students passed their Royal Sanitary Institute Examination, July, 1951, and are showing considerable promise in the field.

Convalescent Facilities

As part of the facilities available for providing convalescence for children under five years of age under Section 22 of the National Health Service Act, 1946, arrangements have been continued with the Invalid Children's Aid Association. As from 1st June, 1951, the fee for placements by the Association in holiday or rest homes was increased from 10/- to 13/- for each child placed.

Towards the end of the year a standard charge of £2 5s. 0d. per week was approved in connection with the provision of convalescent facilities for both adults and infants. In all cases of need the Council's Scale of Assessment will be applied as heretofore. This matter is dealt with in more detail on page 89.

During the year 165 applications (24 in respect of mothers and 141 in respect of children) were received and convalescence was provided in 124 cases (19 mothers and 105 children).

CHILDREN ACT, 1948

The arrangements which have been in operation since 1948 to ensure the provision of suitable medical treatment for children who are under the care of the County Council under the provisions of the Children Act, 1948, have been continued and extended or varied according to circumstances.

Medical Staff at Children's Homes and Residential Nurseries

Arrangements were made during the year for an experimental period of twelve months for Assistant County Medical Officers to undertake the medical supervision and examination of children accommodated in children's homes and residential nurseries in the Mid-Essex Health Area, thus superseding the previous arrangements whereby these duties were carried out by the medical practitioners who provide medical treatment for the children under Part IV of the National Health Service Act, 1946. If this proves satisfactory, consideration will be given to extending the scheme to other Areas of the County subject to the availability of adequate medical staff.

Medical Supervision of Remand Homes

The medical supervision of the Great Baddow Remand Home for Girls and the Boyles Court Remand Home for Junior Boys at Brentwood (which has replaced the Harold Wood Remand Home) has been continued, and the following reports have been submitted by the Medical Officers who undertake the supervision :—

HAROLD WOOD REMAND HOME FOR JUNIOR BOYS—MEDICAL OFFICER,
DR. A. R. FORBES.

Number of admissions	.. 256	Number of leavers	.. 266
Average number each day		24	

Disposal of Leavers—

Approved Schools ..	105
Special Schools for E.S.N. pupils	1
Institution for Mental De- fectives	1
Special School for Mal- adjusted pupils	2
Other Remand Homes ..	2
Children's Homes ..	19
Fit Person Orders ..	2

Carried forward .. 132

Brought forward ..	1322
Probation Orders ..	89
Conditional Discharge ..	22
Adjourned—on bail ..	155
Bailed pending Appeal ..	11
Fined	11
Discharged—Detention, Section 54	255
Charge withdrawn ..	11
Total ..	2663

Health. There was no serious illness of any kind and no illness of epidemic character.

The prolonged periods of remand in the case of an educationally sub-normal boy awaiting admission to a Special School, and of a mentally defective boy awaiting admission to an appropriate Institution, were matters of much concern.

GREAT BADDOW REMAND HOME FOR GIRLS—MEDICAL OFFICER, DR. J. MERVYN THOMAS.

Number of admissions during the year 152

Number of leavers .. 1344

Disposal of Leavers—

Approved Schools ..	41
Children's Homes ..	7
Institutions for Mental Defectives	3
Other Remand Homes ..	6
Fit Persons Orders ..	9
Special Schools	9
Probation and Supervision Orders	57

Carried forward .. 132

Brought forward ..	1322
Cases adjourned	—
Discharged after Detention, Section 54	—
Successful Appeal against committal	22
Total ..	1344

Contributing Authorities—

Essex County Council
London County Council
Huntingdon County Council

Southend-on-Sea County
Borough
East Ham County Borough
West Ham County Borough

“ The procedure adopted throughout the year has been in accordance with that set out in my previous report of 1950. The services available to the adolescents committed to the charge of the Home have continued in every

respect the same. The only change for administrative convenience is that Dr. Joyce Brown no longer undertakes the examinations, and these are done by myself. An additional benefit of this is that cases can be admitted to the Isolation Hospital, when required for observation, etc., as I am the Medical Officer of that institution, and the practitioner allocated to this particular Remand Home is also my Deputy at the Hospital.

Medical reports for the Court and examinations are completed by the Child Guidance Centre and by Dr. Bartlett of the Education Department when required.

During the year 157 cases were examined and reported upon."

CHAFFORD APPROVED SCHOOL FOR BOYS, RAMSEY.

The arrangements have been continued whereby the medical supervision at this School is undertaken by a medical practitioner residing in the area.

Boarded-out Children

A careful perusal of the reports of general practitioners following their annual medical examinations of boarded-out children has been made throughout the year and particulars of all children having conditions requiring treatment or observation have been referred to the appropriate Area Medical Officer. The number of reports dealt with during the year was 483.

General

As in previous years, co-operation has been maintained between Health Visitors and Officers of the Children's Department, and, as occasions arise in the course of health visiting, foster-mothers are given advice and assistance in matters affecting the health of the children placed in their care. Mothers requiring the temporary care of their children in a residential nursery or children's home owing to exceptional circumstances are also given assistance in making their applications to the Children's Officer.

THE COUNTY DENTAL SERVICE

The Chief Dental Officer (Mr. S. K. Donaldson, L.D.S., R.F.P.S.) writes :—

I have the honour to present my fourth annual report on the dental care of nursing and expectant mothers and pre-school children, in accordance with the requirements of the National Health Service Act, 1946, which is also my eighteenth report as your Chief Dental Officer.

The year 1951 has not been without its troubles and trials in the Dental Service but, although deterioration in staff has continued, it has not been on the same scale as in previous years and the total weekly sessions devoted to the dental treatment of priority classes is substantially the same, being 20 sessions—which is just under the number of sessions which would represent the equivalent of two full-time Dental Officers.

The Government's decision to impose a charge on patients who obtained dentures under the National Health Service, with the exception of priority patients where the dentures were obtained from the Local Health Authority Service under

Part III of the National Health Service Act, did not create such wide-spread difficulty as was expected. Fortunately in most areas of the County patients accepted the fact that if the Local Health Clinic was without the services of a dental officer there was no point in making application for dental treatment through the priority service. In one Area, however, where a regular maternity and child welfare dental session had been operating since before the Appointed Day and had always been well attended by patients, the changed regulations compelled the County Council to enter into a special contract with the dentist concerned. In consequence, priority patients in that area are fitted with dentures for which the County Council pays the total cost to the dentist at National Health Service scale of fees.

Continuing my remarks of last year regarding the Ministry of Health experiment in training oral hygienists, I am now able to report that as a result of satisfactory information an oral hygienist was appointed in each of the Areas of Leyton and Barking. These two young women have been trained under the guidance of the Ministry of Health to carry out scaling and gum treatment, polishing of teeth and the topical application of sodium fluoride solution to the surfaces of teeth in an effort to render them less susceptible to caries. It will take some time to decide upon the success or otherwise of this latter operation and the experiment will be watched with interest, but I would say in passing that the conclusions of the Mission at present in America to study the methods and value of adding sodium fluoride to drinking water may in the end render this operation unnecessary.

The oral hygienists also carry out propaganda and instruction in mouth hygiene. The latter duty, to my mind, being very valuable, but the former duty is, to say the least of it, a mixed blessing, being a measure which stimulates the demand for treatment in conditions in which the priority service can be so easily overloaded.

It will be readily understood that the need for scaling and gum treatment is greater among the adult population and, in consequence, a larger amount of this time-taking work has been diverted from the Dental Officers to the oral hygienists. This work is always found to be necessary where partial dentures are being fitted and is, indeed, often necessary before multiple extractions can be carried out.

During the year 897 scalings were performed, including 246 cases in which prolonged scaling and gum treatment was necessary. It is not too much to say that without this treatment a good proportion of the latter group would have lost their teeth and consequently have required dentures.

The numbers of patients examined in the course of the year were 2,392 adults and 3,845 children under five years of age. The number of adults is much the same, but the children are over 200 more than last year. In each case percentage of patients examined who needed treatment was 94.4 and 94.02 per cent.

The number of teeth extracted is still considerable and will, I think, continue to remain about that proportion until there is a routine bi-annual inspection and treatment instead of delayed visits to clinics until some defect is observed by the patients or parents.

One usually thinks of conservation of teeth in terms of filling, but the broader view should be taken and credit for saving a tooth should be given to those cases where silver nitrate treatment is given. This treatment is usually performed in cases where the tooth is so far decayed as to render cavity preparation difficult and fraught with pain and discomfort. In such cases the Dental Officer, assessing its value in the dental arch, often decides to grind the tooth down to form self-cleansing sheds and sterilises the tooth with silver nitrate, thereby prolonging the life of the tooth and retaining it in the arch to the ultimate good of its successor.

Two hundred and five full and 249 partial dentures were supplied to replace lost teeth, but again the volume of work was governed by the dental staff available. It is of interest to note that during 1951 a good proportion of this prosthetic work was constructed in the Council's own laboratories at Barking and Walthamstow. The County Medical Officer of Health has agreed with my suggestion that in time all dental prosthetic work should be carried out by the Council's own technicians. Already the two workshops at Barking and Walthamstow are working to the limits of the staff available, but rather than recommend that the staff should be increased to take the remainder of the work still being carried out by private firms I would prefer to await the time when increase in dental staff would make it profitable to open another laboratory to serve the Areas of Mid- and North-East Essex. This policy is governed by the fact that a laboratory within easy reach of the Dental Officer enables him to visit the technicians and give personal contact in the work which is being carried out for his patients.

New clinics were opened during the year at Manford Way, Hainault, and Dawlish Road, Leyton. The former is of very pleasing design and the dental suite is on a scale which will make a good show-place for any distinguished visitors to the County. The latter is also a very good example of what can be achieved by good planning. Unfortunately, however, we are not at present in a position to make full use of the facilities which they offer.

Throughout the year regular inspection and treatment has been carried out for the children in residential nurseries throughout the County. Although the amount of treatment found to be necessary is small, the children's stay is hardly long enough to allow any study into the beneficial effects to their teeth of their care and feeding whilst in residence.

As the year closed a Bill was presented in Parliament which may well, when it becomes law, have very wide repercussions on the Local Health Authority dental service. It has been drafted as a result of a report by a Mission which visited New Zealand in 1950 to study the training and work of school dental nurses peculiar to that country.

Section 18 of the Bill proposes a like scheme for this country in the nature of an experiment lasting three years. As a Dental Officer, I see much virtue in the proposals as an adjunct to the present Local Authority Health Service and at the same time I can see many dangers. However, it is hardly my duty to offer my criticisms of the Bill in this report.

In conclusion, I would like to extend my thanks to all members of the staff who have remained in the Service and likewise to all other people who have helped me in these difficult times.

SECTION IV—MIDWIFERY AND HOME NURSING

MIDWIFERY

OF 272 midwives employed by the County Council during 1951, 73 were full-time midwives employed mainly in the Boroughs; the remainder were home nurse-midwives devoting an increasing proportion of their time to home nursing.

The 272 midwives attended 6,181 cases as midwives and 1,936 as maternity nurses. Medical aid was called in 33.3 per cent. of the cases attended as midwives. In 27 per cent. of such cases the general practitioner had arranged to provide Maternity Medical Services.

From figures available it would appear that in about 50 per cent. of domiciliary midwifery cases in Essex the patient still makes no prior arrangement with a general practitioner.

Maternity Medical Services and Fees of Doctors called in by Midwives

The term Maternity Medical Services was originally coined under the National Health Service Act, 1946, to cover the maternity services provided by general practitioners for domiciliary patients for which an inclusive fee of seven guineas (or five guineas if the doctor was not a general practitioner obstetrician) was payable to the doctor. The minimum service rendered consisted of two ante-natal examinations and one post-natal, plus a guarantee that the doctor would attend at the confinement if the midwife required his assistance.

Although it is still emphasised in Ministry of Health Circulars that normally a general practitioner who is not in a position to provide the full range of maternity medical services ought not to enter into an arrangement for their provision, since 1946 it has been found necessary to include certain services for hospital patients under this scheme. In exceptional circumstances a general practitioner obstetrician may claim 3½ guineas for a Period I fee (two ante-natal examinations) for a hospital patient.

The discharge of patients from hospital before the 14th day of the puerperium made it necessary to cover any medical treatment which patients might require between the time of discharge and the 14th day, and during 1951 it was agreed that in such cases a doctor called in either by a midwife or by a relative of the patient should be paid at the rate of 10/6d. per visit up to a maximum of 4½ guineas.

A further change during 1951 was the decision that if medical attendance was required after the 14th day for a patient who had been confined either at home or in hospital, the family doctor should be called in and should attend the patient as part of his general medical services.

This required an amendment to instructions given by the Central Midwives Board in 1948 to midwives regarding the calling in of medical aid. Should the midwife still be in attendance after the 14th day and find it necessary to call in a medical practitioner for an abnormality developing after the 14th day, she is now required to call in the general practitioner on whose list the name of the patient appears even if another doctor has provided maternity medical services.

Duration of Lying-in Period and the Admission of Maternity Patients to Hospital

The Central Midwives Board informed Regional Hospital Boards and Local Health Authorities in January, 1951, that for a further period of twelve months no disciplinary action would be taken against an institutional midwife solely on the grounds that she had attended a patient for ten days only following confinement. This dispensation has been allowed to institutional midwives since 1947, while the domiciliary midwife is required to attend her patient for a period of 14 days following confinement. The effect of early discharge of maternity patients from hospital on the training of the pupil midwife has evidently been causing anxiety, as the Central Midwives Board considered it necessary to warn hospitals that regular discharge of patients before the tenth day might result in withdrawal of approval of the hospital as a training school for midwives. Hospitals were also advised by the Board that if they discharged patients between the tenth and fourteenth day they must make proper arrangements for the transfer of responsibility for the rest of the lying-in period.

Further point to this pronouncement of the Central Midwives Board was given by the issue of a memorandum in August from the Ministry of Health on the selection of maternity cases for admission to hospital. This memorandum was based on advice from the Standing Maternity and Midwifery Committee of the Central Health Services Council. After commenting on the fact that there had been an accelerating increase in the last few years in the proportion of hospital confinements and pointing out that this was not directly related to medical need or to housing, it was explained that the demands by patients on the free service of the maternity hospital (as against the ancillary costs of a domiciliary confinement) had resulted in little discrimination in selection of cases and over-booking at some hospitals. Early discharge of patients from hospital—even as early as two or three days after confinement—had followed, and hospitals were advised that it was essential to restrict bookings so that each patient was allowed a minimum stay after confinement of ten days in hospital and that this should preferably be extended to 14 days. In general, hospital provision for 50 per cent. of the births in any area was likely to cover both medical and social requirements, and to allow for emergencies, booking of 80 per cent. expected bed occupation was considered a reasonable figure.

The importance was stressed of obtaining the advice of the Medical Officer of Health of the Local Health Authority in assessing priorities of social factors and in estimating whether any increase in maternity beds was required.

The following table gives the number of domiciliary and of institutional births in each Area of Essex, showing the institutional births as a percentage of the total, with 1950 percentages for comparison.

BIRTHS NOTIFIED IN 1951.

Area	Domiciliary	Institutional	Total	Institutional as a percentage of total	
				1951	1950
North-East Essex ..	835	1,731	2,566	67.5	54.3
Mid Essex	1,108	2,085	3,193	65.3	60.3
South-East Essex ..	674	874	1,548	56.5	54.8
South Essex ..	1,627	1,876	3,503	53.5	54.2
Forest	1,069	1,845	2,914	63.3	64.7
Romford	694	1,026	1,720	59.6	61.8
Barking	268	919	1,187	77.4	74.5
Dagenham	646	1,130	1,776	63.6	53.6
Ilford	633	1,756	2,389	73.5	71.9
Leyton	397	1,025	1,422	72.1	72.2
Walthamstow ..	492	1,264	1,756	72.0	76.5
Total	8,443	15,531	23,974	64.8	63.4

The Ministry of Health recommendation to hospitals regarding selection of cases was issued too late to have any marked effect on the 1951 bookings and confinements. It will be noted that the percentage of institutional births in Essex increased slightly compared with the 1950 figure. This represented an absolute increase as well as a percentage increase although only four of the six areas showing a higher percentage of institutional births had a greater number of hospital births than in 1950, while two of the five areas showing a lower percentage had actually a larger number of hospital births than in 1950, the latter occurring in areas with new rapidly growing London County Council housing estates.

In some areas there is good co-operation from hospitals and when admission to hospital is requested by a patient on social grounds only, a report on the home conditions from the Local Health Authority is given due weight; in one or two areas the selection for admission to hospital of such social circumstances cases is left entirely in the hands of the Area Medical Officer. In other areas no report on the home circumstances is asked for and indiscriminate booking continues.

Prematurity, Still-births and Abortions

The Ministry of Health has for a number of years asked that a detailed return should be made of the survival rate of premature babies born either at home or in a private nursing home. These are classified under weight at birth and number of days survival, and the return also includes the number born at home but transferred to

NUMBER OF :—

(a) stillbirths at home—
over 5½lbs—57
5½lbs or less—37

(b) abortions at home of 18–28 weeks gestation—34.

Number of :—

(a) stillbirths in private nursing homes—
over 5½lbs—8
5½lbs or less—1

(b) abortions in private nursing homes of 18–28 weeks gestation—0

Weights in lbs oz. or grammes	Stillbirths and abortions (of 18-28 weeks gestation only) where the foetus was 5½lbs or less	Premature infants born alive at home					Premature infants born alive in private nursing homes					
		Trans- ferred to Hospital	Nursed entirely at home				Trans- ferred to Hospital	Nursed entirely in private nursing home				
			Died in first 24 hours	Died on 2nd to 7th day	Died on 8th to 28th day	Survived 28 days		Total	Died in first 24 hours	Died on 2nd to 7th day	Died on 8th to 28th day	Survived 28 days	Total
2 lbs., 3 ozs. or less (1,000 gms. or less) . .	22	9	2	—	—	1	3	—	—	—	—	—
Over 2 lbs., 3 ozs., up to and including 3lbs 4 ozs. (Over 1,000 gms. up to and in- cluding 1,500 gms.)	9	11	1	—	—	3	4	1	—	—	—	—
Over 3 lbs., 4 ozs., up to and including 4lbs 6 ozs. (Over 1,500 gms. up to and in- cluding 2,000 gms.)	12	29	1	3	1	24	29	1	—	—	3	3
Over 4lbs. 6 ozs. up to and including 4 lbs., 15 ozs. (Over 2,000 gms. up to and in- cluding 2,250 gms.)	4	11	2	1	—	40	43	—	—	—	—	—
Over 4 lbs., 15 ozs. up to and including 5lbs., 8 ozs. (Over 2,250 gms., up to and in- cluding 2,500 gms.)	8	17	2	1	2	161	166	—	—	—	9	9
Totals	72*	77	8	5	3	229	245	2	—	—	12	12

* Includes 17 cases of unknown weight.

hospital. Since 1950 Local Health Authorities have been asked in addition to notify hospitals of the death or survival of premature infants discharged home before the 28th day of life.

During 1951 the form of return was reviewed to bring British statistics on prematurity into line with those collected in other countries. The classification of birth weights is now based on the metric system, i.e. from 1,000 grammes or less to 2,500 grammes. The revised return asked also for details of the weight of the foetus in abortions of 18-28 weeks and of still-births, so that comparison might be made with the weight of live premature births according to the period of survival.

Midwives throughout the County have been asked to supply this information where practicable, although it is realised that the records will be incomplete as there is no legal requirement for abortion to be notified, and in the case of a premature baby with a very low birth weight the welfare of the baby must not be sacrificed to the demand for accurate statistics.

CARE OF PREMATURE BABIES. The provision for the care of premature babies varies in different Areas. In some Areas adjoining London admission to hospital of any woman who comes into labour prematurely is encouraged; in other Areas it is arranged in suitable cases for the mother and baby to be admitted to hospital, the baby to a specially equipped premature baby unit either in the Area or in an adjoining Area.

Discussions took place during the year with the consulting pædiatrician attached to the King George Ilford, Wanstead and Oldchurch Hospitals as to what improvements could be made in hospital provision for premature babies born in the Areas adjoining London and the matter was subsequently referred by him to the Secretary of the North East Metropolitan Regional Hospital Board Pædiatric Advisory Committee.

Early in 1951 the pædiatrician and staff at the premature baby unit at St. John's Hospital, Chelmsford, made arrangements for admission from the district in suitable cases of the mother and her premature baby. General practitioners and midwives practising in the area served by the hospital were advised that while good progress was made by the majority of premature babies born and nursed at home, it was recognised that the smaller premature babies (under 4lbs.) and the less healthy of the larger premature babies had a better chance of survival if nursed in a specially equipped hospital unit. Details were given of the procedure to be adopted to secure admission. It was arranged that the hospital ambulance with special equipment would be sent to take the mother and baby to hospital, and if there was any doubt as to the advisability of moving the baby the registrar or sister of the unit would accompany the ambulance; otherwise the domiciliary midwife would go with the mother and baby to the hospital. Certain advice from the pædiatrician on the care and handling of the baby was included and it was emphasised that the decision about admission should be made as soon as possible after respiration had been established, and in all cases within 24 hours because of the danger of introducing infection into the nursery.

In the more rural areas of Essex the divorce of hospital midwifery from Local Health Authority services has made the supply of extra equipment (i.e. draught-proofs, cots, hot water bottles, etc.) for use in the home care of premature babies a matter of some practical difficulty. The obvious place to keep such equipment is at a hospital. The decreasing percentage of domiciliary births and especially the small number

premature domiciliary births meant that the equipment provided would seldom be required in any particular Area. The difficulty was solved in the Mid-Essex Health Area through the co-operation of the pædiatrician attached to the St. John's Hospital, Chelmsford, who agreed that a spare set of such equipment would be available from the hospital on loan at the request of a domiciliary midwife.

The table on page 72 gives the deaths at different periods of the neonatal period of premature infants in the eleven Areas of the County, showing deaths among those (1) born and nursed entirely at home, (2) born at home but subsequently transferred to hospital, and (3) born and nursed in hospital. The figures show that reduction in the deaths of premature infants in Essex is becoming very largely a question of reduction of hospital deaths. In four Areas no deaths occurred among premature babies born and nursed entirely at home and in two of these Areas there were no deaths of premature babies born at home and transferred to hospital. Two other Areas had only one death each of premature babies nursed at home, and in three Areas only one death from each Area occurred of premature babies transferred to hospital.

There is no significant difference in the incidence of prematurity from one Area to another except in Dagenham where the incidence is higher than the average. The table on page 73 shows the distribution in weight ranges of the births and deaths of premature babies born at home in the different Areas. In addition, the deaths of premature babies born in hospital are similarly classified.

Insufficient information is at present available to make any comparison of survival rates in Essex of premature babies born at home and in hospital. Hospital figures are weighted with abnormalities, but in an Area where 70-77 per cent. of the total births are occurring in hospital this factor may not be very significant. It is at least of interest to note that when ten Areas of the County (omitting Dagenham because of its high incidence of prematurity) are grouped according to percentage of institutional births, the mortality rate of premature babies in the five Areas with an average of 71 per cent. institutional births is 17.3 per cent., compared with a mortality rate of 15.5 per cent. in the five Areas with an average of 59 per cent. institutional births.

Ante- and Post-Natal Clinics

The details of attendances during 1951 of women at ante-natal and post-natal clinics provided by the County Council are shown below :—

	<i>No. of clinics provided at end of year whether held at Child Welfare Centres or other premises</i>	<i>No. of sessions now held per month at clinics included in col. (2)</i>	<i>No. of women in attendance</i>		<i>Total No. of attendances made by women included in col. (4) during the year</i>
			<i>No. of women who attended during the year</i>	<i>No. of new cases included in col. (4)</i>	
(1)	(2)	(3)	(4)	(5)	(6)
Ante-natal clinics ..	75	401	15,540	11,926	73,931
Post-natal clinics ..	13	30	4,324	4,202	6,011

NEONATAL DEATHS OF PREMATURE INFANTS, 1951

Number of Premature Infants born alive and those dying during the neonatal period

	<i>Total</i>	BORN AND NURSED AT HOME					BORN AT HOME AND TRANSFERRED TO HOSPITAL					BORN AND NURSED IN HOSPITAL				
		No. Born.	No. died 1st day	No. died 2nd-7th day	No. died 8th-28th day	Total No. died	No. Born	No. died 1st day	No. died 2nd-7th day	No. died 8th-28th day	Total No. died	No. Born	No. died 1st day	No. died 2nd-7th day	No. died 8th-28th day	Total No. died
North-East Essex..	118	22	1	—	1	2	6	—	—	1	1	90	7	10	2	19
Mid-Essex	155	26	1	1	—	2	14	—	4	1	5	115	7	9	2	18
South-East Essex..	88	30	1	—	1	2	12	—	2	1	3	46	5	2	—	7
South Essex	176	36	3	1	1	5	8	2	1	1	4	132	10	5	—	15
Forest ..	118	24	—	1	—	1	8	—	2	—	2	86	7	4	1	12
Romford	80	18	2	1	—	3	3	—	1	—	1	59	7	8	1	16
Barking..	70	10	—	—	—	—	1	—	—	—	—	59	3	4	3	10
Dagenham	121	24	—	1	—	1	7	—	3	1	4	90	6	12	—	18
Ilford ..	123	16	—	—	—	—	6	—	2	1	3	101	8	11	1	20
Leyton	81	23	—	—	—	—	—	—	—	—	—	58	2	6	1	9
Walthamstow ..	87	16	—	—	—	—	12	—	1	—	1	59	8	9	1	18
County ..	1,217	245	8	5	3	16	77	2	16	6	24	895	70	80	12	162

Deaths, and in brackets births, of premature infants of different weights (in lbs. and ozs.)

	BORN AND NURSED AT HOME					BORN AT HOME AND TRANSFERRED TO HOSPITAL					BORN AND NURSED IN HOSPITAL				
	Less than 2.3					Less than 2.3					Less than 2.3				
	2.4-3.4	3.5-4.6	4.7-4.15	5.0-5.8		2.4-3.4	3.5-4.6	4.7-4.15	5.0-5.8		2.4-3.4	3.5-4.6	4.7-4.15	5.0-5.8	Un-known
North-East Essex ..	- (-)	1 (3)	- (4)	1 (15)		- (-)	- (1)	- (-)	1 (3)	4	6	3	2	2	2
Mid-Essex..	1 (1)	- (2)	- (2)	1 (21)		1 (1)	1 (2)	1 (8)	1 (1)	2	3	1	-	2	10
South-East Essex ..	- (-)	- (1)	1 (4)	1 (25)		- (1)	1 (3)	- (2)	1 (3)	3	-	-	1	2	1
South Essex	- (1)	2 (8)	1 (5)	1 (21)		2 (3)	1 (1)	1 (4)	- (-)	5	2	2	1	-	5
Forest ..	- (-)	1 (4)	- (5)	- (14)		- (-)	1 (1)	- (3)	- (3)	4	3	3	2	-	-
Romford ..	1 (1)	1 (1)	- (4)	1 (12)		- (-)	- (-)	1 (3)	- (-)	6	5	-	3	2	-
Barking ..	- (-)	- (1)	- (-)	- (9)		- (-)	- (-)	- (-)	- (1)	2	1	2	4	1	-
Dagenham	- (-)	- (-)	1 (5)	- (19)		2 (3)	- (1)	1 (1)	1 (1)	4	5	6	2	1	-
Ilford ..	- (-)	- (1)	- (3)	- (12)		1 (1)	1 (1)	- (2)	1 (2)	4	5	6	1	1	3
Leyton ..	- (-)	- (4)	- (7)	- (11)		- (-)	- (-)	- (-)	- (-)	1	1	4	-	3	-
Walthamstow	- (-)	- (4)	- (4)	- (7)		- (-)	- (1)	- (6)	- (3)	7	2	8	-	1	-
County ..	2 (3)	5 (29)	3 (43)	5 (166)		6 (9)	5 (11)	4 (29)	5 (17)	42	33	35	16	15	21

Out of 14 premature babies born in Nursing Homes, one only died. Area N.E. Weight 3 lbs. 4 ozs. Age 2 weeks.
Died after transfer to hospital.

Gas and Air Analgesia

By December, 1951, 97 per cent. of County Council midwives were qualified to administer gas and air analgesia. The number of mothers confined at home who received this type of analgesia during the year was 4,559.

Administration of Pethidine

Pethidine was administered by County Council midwives to 1,966 mothers.

Public Health (Ophthalmia Neonatorum) Regulations, 1926-1937

During the year 17 cases of Ophthalmia Neonatorum were notified; vision was unimpaired in every case.

Puerperal Pyrexia Regulations 1951

In order to bring midwives' practice into line with the Puerperal Pyrexia Regulations, 1951, which came into force on 1st August and required notification to the Medical Officer of Health of a single rise of temperature to 100.4° (instead of a rise of temperature to 100.4° for 24 hours or its recurrence within that period) the Central Midwives Board amended No. 8 of its "Notices concerning a Midwife's Code of Practice" by a similar alteration.

The number of cases of Puerperal Pyrexia which were notified during the year was 304, of which 47 were domiciliary and 257 institutional. Owing to the change in the regulations these numbers bear no relation to and cannot be compared with notifications in previous years.

Maternal Deaths

The number of deaths associated with child-birth in 1951 was 13 giving a maternal mortality of 0.54 per 1,000 total births compared with a rate of 0.67 per 1,000 births in 1950.

The Midwives Act, 1951

The Midwives Act, 1951, came into force on 1st September, 1951. It is a consolidating Act reproducing without amendment the law contained in the Midwives Acts, 1902-1950 and in such of the provisions of the National Health Service Acts, 1946 and 1949 as amended certain provisions of those Acts. From 1st September therefore the Midwives Act, 1951 became the statutory authority for the constitution and functions of the Central Midwives Board.

Virus Infection during Pregnancy

The Ministry of Health enquiry was continued during 1951 into the relationship between Virus Infection during Pregnancy and congenital defects in children. By the end of the year, 33 cases of virus infection in pregnancy had been registered in Essex along with 69 controls (women born on the 31st of any month).

HOME NURSING

There were at the end of 1951 311 nurses undertaking Home Nursing duties in the County, of whom 56 were employed on a part-time basis, the latter being usually married women prepared to work from Monday to Friday but not at week-ends. Of these part-time nurses 36 work from the four Training Homes at Colchester, Dagenham, Leyton and Walthamstow. Of the 311 nurses employed 114 (82 of whom are working from the Training Homes) were wholly engaged on Home Nursing duties; the remainder being employed as Home Nurse-Midwives. The number of patients attended by home nurses during the year was 31,642 and 621,400 visits were paid. This is an increase of 61,118 visits on the 1950 figures.

At the Lady Rayleigh Training Home (a key Training Home) at Leytonstone there were 32 full-time home nurses and 25 part-time home nurses together making a total of approximately 45 full-time nurses. The home nursing staff attached to this home serve Barking, Ilford, and Leyton Health Areas and part of the County Borough of West Ham (by arrangement with the County Borough Council) and the number employed provides approximately one nurse to every 7,000 of the population. With the increasing demands on the services of the home nurse, partly as a result of the more extensive use of modern drugs by injection and partly owing to the greater number of old people to be nursed at home, it is likely that further expansion of the home nursing staff will be required although the numbers serving this particular area have been trebled in three years.

The search for suitable accommodation to establish a branch Home in Ilford continued in 1951. After several fruitless inspections of properties negotiations were begun in July to purchase Abury House; a property capable of accommodating six or seven staff, and by the end of the year the Ministry of Health had agreed to its purchase by the County Council.

TRAINING HOMES

The extended County Training Scheme for district nurses came into operation in March, 1951. This scheme enabled students to have the whole of their training within the County whereas in the past they had to travel to London for lectures. A panel of lecturers was approved mainly from the County Council staff, plus certain outside lecturers and consultants in the different specialties, to cover the 40-odd lectures and visits required by the syllabus of training. The lectures are given in a block during the second month of training. Approval was obtained from the Central Midwives Board for Part II pupil midwives to attend, where appropriate, the same lectures as the Queen's candidates. As it is usual for both Queen's candidates and Part II pupil midwives to be accepted for training every quarter, three lecture blocks were held in 1951.

The number of Queen's candidates trained was 22, eight of whom were out-County candidates; five of the remainder did their practical training in Colchester or Dagenham.

The number of Part II midwifery pupils who completed training during 1951 was 81; 37 at the Lady Rayleigh Training Home, Leytonstone, 23 from Carisbrooke Road, Walthamstow, 11 from Cambridge Road, Colchester, and 10 from York House, Dagenham.

In October the Central Midwives Board gave a closer definition of what a pupil midwife may or may not do in the administration of Gas/Air Analgesia. The Board stated that "provided the pupil had received adequate instruction in and was fully conversant with the use of the apparatus, that the teaching midwife was satisfied as to the pupil's ability and was herself readily available in an emergency, no exception would be taken to allowing experienced pupil midwives to administer gas/air analgesia and to deliver the case, where the local supervising authority desired to authorise such a practice".

Approval was obtained to the provision of a new duty room at the Lady Rayleigh Training Home. This was badly needed and its provision will enable the former general duty room to be converted into office accommodation. The kitchen accommodation at this home was improved by an extension to the larder.

REGISTRATION AND INSPECTION OF NURSING HOMES

There was very little change in the number of beds available in registered nursing homes in the area of the County for which the County Council is responsible for inspection. Two small homes were registered during the year, one for two maternity patients and the other for four medical or convalescent patients. At the end of the year the number of registered nursing homes was 46, providing a total of 488 beds. All registered homes were inspected regularly by officers of the department.

NURSES ACT, 1943—NURSING CO-OPERATIONS

In the area for which the County Council is the authority there are two Nursing Co-operations and these are inspected annually.

CARE OF UNMARRIED MOTHERS AND THEIR BABIES

The arrangement was continued whereby the Chelmsford Diocesan Moral Welfare Association undertook on behalf of the County Council all work in connection with the provision of temporary accommodation for unmarried mothers and their newly born babies.

The total number of beds provided in the Association's seven shelters (two of which are situated outside the Administrative County) at the end of 1951 was 69. Nineteen of the beds are provided in the two shelters which are outside the County; one shelter was used entirely as an ante-natal hostel. During the year 468 girls were admitted to the seven shelters, of which 103 were to the two shelters outside the Administrative County. The average length of stay of each mother was six to seven weeks before confinement and four to five weeks after confinement.

In addition, the Diocesan Association maintains a home with 16 beds, some of which are maternity beds. This is used mainly for the very young unmarried mothers.

Close co-operation is maintained between the staff of the County Council and that of the Diocesan Association and visits are paid to the different homes of the Association.

SECTION V—PREVENTIVE MEDICINE, CARE AND AFTER-CARE

TUBERCULOSIS

Domiciliary Visits

IN some areas of the County visits to tuberculous patients are paid by full-time Tuberculosis Visitors ; in other areas the visits are shared by full-time Tuberculosis Visitors and by Health Visitors doing combined work ; in rural areas all the visits are paid by Health Visitors. The 21 full-time Tuberculosis Visitors paid 20,675 visits during the year. The Health Visitors paid 7,277 visits. The number of patients on the Chest Physicians' registers at the end of the year was 10,688.

One of the most important functions of Tuberculosis Visitors or Health Visitors is to ensure that all tuberculosis contacts attend at a Chest Clinic periodically for examination. During the year 6,234 contacts were examined.

A Tuberculosis Visitor or a Health Visitor is in attendance at all tuberculosis clinic sessions and many of them also attend at artificial pneumothorax refill sessions. There are 75 clinic sessions and 26 artificial pneumothorax refill sessions carried out for County patients every week.

Tuberculosis Care Associations

It is encouraging to be able to report that with the formation during the year of two new Tuberculosis Care Associations, which increases their number to 16, the whole of the Administrative County is now covered. The new Associations are known as the Braintree, Witham and District Care Association, which covers a population of approximately 48,000, and the Maldon, Burnham-on-Crouch and District Care Association with a population of approximately 28,000.

The grant on the basis of 30/- a thousand of the population made by the County Council to each Association was continued. In addition, each Association received, again according to the population covered, an allocation of the money derived under the provisions of the Sunday Entertainment Act, 1932. Notwithstanding these grants and money raised by voluntary effort, it was found necessary to give further grants to two Associations because of the strain imposed upon their resources by the needs of tuberculous patients rehoused on the London County Council housing estates at Romford (Harold Hill), Loughton (Debden) and Chigwell (Hainault).

Care Associations normally limit the help which they give to personal and family assistance not available through statutory and other official sources, although in some cases it was necessary to point out instances where overlapping had taken place, e.g. in the provision of free milk.

Annual Reports by Care Associations up to 31st March, 1951, show that approximately £4,825 was spent on milk and £3,230 on groceries. Much of the expenditure by Care Associations was due to their provision of a second pint of milk daily when this was recommended by the Chest Physician. Other types of assistance included the provision of clothing and bedding (£837), holidays and outings (£234), Christmas

gifts to patients in hospital (£89), the payment of fares of relatives visiting patients in hospital (£407) and help with miscellaneous items, such as fuel, mortgage payments, wireless licences and, in one or two cases, the provision of a wireless set. The total amount spent by Care Associations during the year ended 31st March, 1951, was £10,156. Some Associations raised a much larger proportion of their funds by voluntary effort than others, the average being 36 per cent. of expenditure.

The time spent by members of all Care Associations in carrying out this voluntary work is much appreciated.

Open-Air Shelters

Towards the end of 1950 and during the early part of 1951 a detailed survey of all open-air shelters in the County was undertaken in order to ensure that they were being used for the purpose for which they were installed, which is to assist in the segregation of the tuberculous patient from other members of the family residing in the same household and to enable the patient to sleep as much as possible in the open air.

The following is a resumé of the findings :—

- (1) In the Metropolitan areas, where it would have been expected that the greatest need exists, shelters are sparse. The reason for this may be either lack of garden space in which to erect a shelter or the shrinking from publicity which patients think the use of a shelter arouses.
- (2) Of the 55 shelters out on loan, 6 were in constant use night and day (that is to say the patients were in bed in the shelter), 20 were used for sleeping purposes at night, 7 were used during the summer months only, 15 were for various reasons not being used at all, and in 7 cases retention of the shelter was a matter of long usage rather than present need.

The conclusions to be drawn are that the provision of shelters only partially gives the answer to the problem of segregating the patient. Many of those who sleep in their shelters at night are up during the day and live indoors with other members of the family. The fact that they sleep in the shelter is, of course, beneficial to themselves and in many cases it avoids the necessity of sharing a bedroom. Although the provision of shelters in suitable cases should be encouraged, the probable use which would be made of them is an important consideration in view of the present high cost involved in installing and maintaining these structures.

Following the survey several shelters were withdrawn and issued to other patients. It was found unnecessary to purchase new shelters even although some old ones became no longer usable. At the end of 1951 the number of open-air shelters in use was 49.

B.C.G. Vaccination

The arrangements set out in the Annual Report for 1950 whereby Chest Physicians undertake B.C.G. vaccination of Mantoux negative contacts living in tuberculous households continued throughout the year. The total number of children vaccinated in 1951 was 601, but it was found that the number of inoculations carried out in the different chest clinics varied from none at some clinics to 161 at one clinic. Some Chest Physicians are now holding regular B.C.G. sessions. Chest Physicians have

also agreed to provide B.C.G. vaccination for children boarded-out in Essex by the London County Council.

In August the first few children were admitted for B.C.G. vaccination to the "Ardmore" Residential Home, Buckhurst Hill, although the adaptations which were necessary had barely been commenced. The sanction of the Ministry of Health to the proposal has been granted. The Home accommodates 22 children and will be used for those who are to be segregated for three months while undergoing B.C.G. vaccination and also for the accommodation of children who, although they have a positive Mantoux test, nevertheless require to be boarded out for varying periods because of the presence in the household of a relative suffering from tuberculosis, combined with unsatisfactory home conditions. The staff, which is not yet complete, will consist of a matron, deputy matron, two certificated nursery nurses, three junior nursery assistants and domestic staff.

The age range of the children is from two weeks to 12 years. It has been decided that the maximum charge to the parent will be 12/6d. a week in respect of each child, subject to abatement in cases of hardship. In several instances application for admission has been made for two or three children from one family and this has proved to be a most satisfactory arrangement. The Chest Physician in whose area the Ardmore Home is situated attends for the purpose of carrying out B.C.G. vaccination. When the child is discharged the B.C.G. record card is sent to the Chest Physician of the area of domicile so that he can undertake follow-up examinations.

All members of the staff are X-rayed before appointment and at yearly intervals thereafter and every precaution is taken to safeguard the children from other infectious diseases during their stay in the Home.

Between August, 1951, and the end of the year 21 children had been admitted to the Home.

Boarding-out of Child Contacts of Tuberculosis

During the year 24 children from tuberculous households were boarded-out with foster parents. Owing to the general increase in the cost of living it was found necessary to increase the maintenance and clothing allowances paid to foster mothers in respect of those children. The maintenance allowance is now £1 5s. 0d. a week for each child, the clothing allowance being £2 a quarter for children under the age of five and £3 a quarter for children of five and over. The maximum contribution made by the parent in respect of each child is 12/6d. a week, subject to abatement in cases of hardship.

Occupational Therapy

Several of the Tuberculosis Care Associations endeavour to provide materials for some form of home occupation for patients, and during the year the County Council accepted responsibility for expenditure on equipment and instructor's fees for a class in weaving which had been commenced by the Leyton, Wanstead and Woodford Tuberculosis Care Association. The class is held in a room adjacent to the Health Area Office and an exhibition of the articles which had been made by patients showed a

wide range of woven materials, such as scarves, cushion covers and cloth. It is intended to commence instruction in the making of jewellery soon. The appointment of occupational therapists so that similar schemes may be initiated in some other Areas of the County is under consideration.

Books for Tuberculous Patients

It has long been the practice for the Joint Committee of the British Red Cross Society and the Order of St. John of Jerusalem to lend books to tuberculous patients in hospital and to ex-Service patients in their own homes in Essex. During the year an agreement was reached between the County Council and the Joint Committee for a similar service to be provided for "home-bound" civilian patients who, being tuberculous, are precluded from borrowing books from public libraries. Since it was considered that the most useful link between the patient and the library was the Care Association it was arranged that the secretaries of Care Associations should notify the Joint Committee of patients who wished to participate in the scheme. The County Council make a grant of 2/6d. in respect of each patient to whom books are lent in any one year, irrespective of the number of books borrowed. During the year 99 patients took advantage of the scheme.

Rehabilitation

The County Council have continued to contribute towards the cost of rehabilitation at the Papworth Village Settlement and the British Legion Settlement, Preston Hall Maidstone, of those Essex patients who have been recommended by Chest Physicians for this form of after-care. During the year seven new cases were sent to these Settlements and at the end of the year 12 persons were being wholly or partly maintained by the County Council. The benefit to the tuberculous patient of this gradual rehabilitation—first of all by learning a suitable trade at the pace suited to his state of health and eventually, when cure is completed, becoming established in the trade—is undoubtedly great.

Notifications

Particulars of new notifications of tuberculosis received during 1951 are given below. Primary cases numbered 1,536 compared with 1,586 in 1950, and had the following sex and age distribution :—

Primary Notifications of New Cases of Tuberculosis.

Age Period	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	All Ages
Respiratory, Males ..	4	4	23	19	16	62	85	179	115	135	98	34	4	778
Females ..	4	6	8	20	20	80	122	158	82	49	14	11	1	575
Non-Respiratory, Males ..	—	2	18	14	14	11	8	13	3	6	5	2	2	98
Females	1	4	12	12	7	10	11	13	4	5	4	—	2	88

Fewer cases of respiratory tuberculosis were notified among both men and women but this was not so at every age. There were notable increases in the number of new

cases in the older age groups. The decrease in the number of new cases in the younger age groups and the increase in the number of new cases in the older age groups needs to be examined in relation to the figures over a period of years to get it in its true perspective.

Since 1946, apart from a small rise in 1950, the number of new cases among males has fallen each year. New cases among females rose to a peak in 1948, and although there has been some decline since then, each year there have been more cases than in 1946.

When the new cases each year are examined in relation to age it is found that for children and young people under 20 and for those over 45, the trend from year to year has been similar for each sex, but between the ages of 20 and 45 the trend for males has been quite different from that for females. The diagram on page 118 shows the trends for children, young men and women between 15 and 20, persons of 45 and over, and separately for men and women between 20 and 45. The numbers of new cases in these groups are also given in the following table :—

<i>Age</i>	<i>Sex</i>	<i>1946</i>	<i>1947</i>	<i>1948</i>	<i>1949</i>	<i>1950</i>	<i>1951</i>
0-14	M	53	65	64	61	71	66
0-14	F	40	34	71	62	77	58
15-19	M	56	78	92	92	76	62
15-19	F	97	99	115	110	86	80
20-44	M	547	475	421	414	419	379
20-44	F	353	373	368	349	348	362
45 and over	M	247	250	219	211	228	271
45 and over	F	61	79	68	55	74	75
All ages	M	903	868	796	778	794	778
All ages	F	551	585	622	576	585	575

These figures and the diagram reveal striking differences in the variations from year to year, differences which cannot be explained by differences in the age distribution of the population which, in spite of an increase in population, has probably remained fairly steady, the natural ageing of the population being offset by a relatively high birth-rate and considerable immigration, largely of young adults and children, into London County Council housing estates.

The number of new cases of respiratory tuberculosis in persons between 15 and 20 rose to a peak in the middle of the period and then declined. For those over 44 practically the reverse was the case. New cases in men between 20 and 45 fell each year except for 1950, but the variation from year to year in the number of new cases in women of the same age was small with no marked trend.

In addition to the formal notifications of new cases of tuberculosis, 414 cases came to the notice of Medical Officers of Health from the sources mentioned in the following table :—

Source of Information.	Number of Cases.	
	Respiratory.	Non-Respiratory.
Death returns from local Registrars ..	7	1
Returns of transferable deaths from Registrar-		
General	2	2
Posthumous notifications	6	2
“ Transfers ” from other areas (other than transferable deaths)	334	21
Other sources (Forms I and II)	25	14
	—	—
	374	40
	—	—

This total of 414 cases is 32 fewer than last year, the decline being in “ Transfers from other areas ”, 21 fewer patients suffering from respiratory and 9 fewer suffering from non-respiratory tuberculosis entering the County in 1951 than in 1950. The age distributions of the 1951 transfers and of all other cases which came to the notice of Medical Officers of Health are set out below :—

Transfers from other areas.

Age Period	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total
Respiratory, Males ..	—	1	4	3	4	12	21	75	24	13	5	3	—	165
Females ..	—	2	8	6	7	17	33	67	19	7	3	—	—	169
Non-Respiratory, Males ..	—	—	—	1	1	1	—	3	3	1	—	—	—	10
Females	—	—	1	—	2	1	1	4	1	1	—	—	—	11

All other sources.

Age Period	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total
Respiratory, Males ..	—	—	—	2	—	1	—	4	2	8	2	3	1	23
Females ..	1	—	2	1	—	1	3	2	2	1	1	1	2	17
Non-Respiratory, Males ..	—	—	1	2	3	2	—	—	1	1	—	2	—	12
Females	—	1	2	—	—	2	1	—	—	1	—	—	—	7

Two deficiencies in the notification system may be mentioned. The first is the non-notification of a proportion of those who die from the disease. There were more than 100 such instances in 1951 representing more than one-quarter of all deaths

attributed to tuberculosis. Even allowing for possible errors in the diagnosis of the cause of death, this figure is remarkably high and indicates that a good many cases are still not being notified.

The other matter is duplicate notifications, of which there were 232 in 1951. These arise in two principal ways, either because both the general practitioner and the Chest Physician notify the same case or from the primary notification of a transfer previously notified elsewhere.

Attack and Death Rates

The following table shows the number of primary notifications of tuberculosis and the number of deaths attributed to the disease, together with the annual attack and death rates in quinquennia since 1920 and for individual years since 1947 :—

YEARS	Respiratory Tuberculosis				Non-Respiratory Tuberculosis				Tuberculosis (All forms)			
	Notifications		Deaths		Notifications		Deaths		Notifications		Deaths	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
1920-24	4904	1.07	3212	0.70	1322	0.29	789	0.17	6226	1.36	4001	0.87
1925-29	5626	1.09	3376	0.65	1853	0.36	704	0.14	7479	1.45	4080	0.79
1930-34	6005	0.97	3498	0.57	2122	0.34	705	0.11	8127	1.32	4203	0.68
1935-39	5521	0.81	3015	0.44	1783	0.26	577	0.08	7304	1.07	3592	0.53
1940-44	6507	1.02	3081	0.48	1859	0.29	592	0.09	8366	1.31	3673	0.58
1945-49	6952	0.95	2674	0.37	1381	0.19	404	0.06	8333	1.14	3078	0.42
1947	1453	0.97	554	0.37	293	0.20	80	0.05	1746	1.17	634	0.43
1948	1418	0.93	539	0.35	232	0.15	76	0.05	1650	1.08	615	0.40
1949	1354	0.87	522	0.34	222	0.14	58	0.04	1576	1.01	580	0.37
1950	1379	0.87	416	0.26	207	0.13	41	0.03	1586	1.00	457	0.29
1951	1353	0.85	336	0.21	183	0.11	57	0.04	1536	0.96	393	0.25

*Annual rate per 1,000 population.

Attack rates from both forms of the disease declined, the decrease in the attack rate from all forms of the disease amounting to 4 per cent. There was another considerable fall in the death rate from respiratory tuberculosis and a small rise in the death rate from non-respiratory tuberculosis.

The following table gives the number of deaths and the death rate from tuberculosis in 1951 for each Health Area with the number of deaths and the average annual death rate in the period 1946-50 for comparison :—

Health Area	No. of Deaths		Average Annual Death Rate per 1,000 population	
	1946-50	1951	1946-50	1951
North-East Essex	260	49	0.30	0.26
Mid-Essex	271	31	0.27	0.15
South-East Essex	218	30	0.44	0.29
South Essex	403	44	0.40	0.20
Forest	308	39	0.35	0.20
Romford	162	32	0.45	0.36
Barking	197	22	0.51	0.28
Dagenham	266	28	0.48	0.25
Ilford	309	41	0.34	0.23
Leyton	216	40	0.41	0.38
Walthamstow	265	37	0.43	0.31
Administrative County ..	2,875	393	0.38	0.25

In each Health Area the death rate was lower in 1951 than the average rate in the previous five years. In some cases the decrease was very marked. Mortality in South Essex was only half, and in Mid-Essex, Barking and Dagenham little more than half the mortality during the five-year period.

Mass Miniature Radiography

Four Mobile Mass Radiography Units provided and administered by the Regional Hospital Boards serve the County as well as the areas of some adjacent Local Health Authorities.

Most of the Health Areas in the County were visited during the year, but full statistical information is not yet available from the North-East Metropolitan Regional Hospital Board. The latest figures available relate to the year 1950, when the Unit held public sessions in six of the larger towns and "closed" sessions in 25 establishments such as hospitals, technical colleges and factories. The total number of persons examined in that year was 48,519, giving a ratio of 1:25 persons over 14 years of age. The proportion of those persons examined who were found to be suffering from active pulmonary tuberculosis was 0.18 per cent., or about two in a thousand.

A conference of officers of Local Health Authorities and directors of Mass Radiography Units in the North-East Metropolitan Regional Hospital Board's Area was held in November. Among other matters discussed was the adequacy of the Mass Radiography Service in relation to the area and population which it was required to serve. It was generally agreed that in all the circumstances the existing facilities were reasonable.

CHIGWELL: HEALTH SERVICES CLINIC.



Photo: E. Nixon Payne, Chelmsford.

FRONT ELEVATION.



Photo : E. Nixon Payne, Chelmsford.

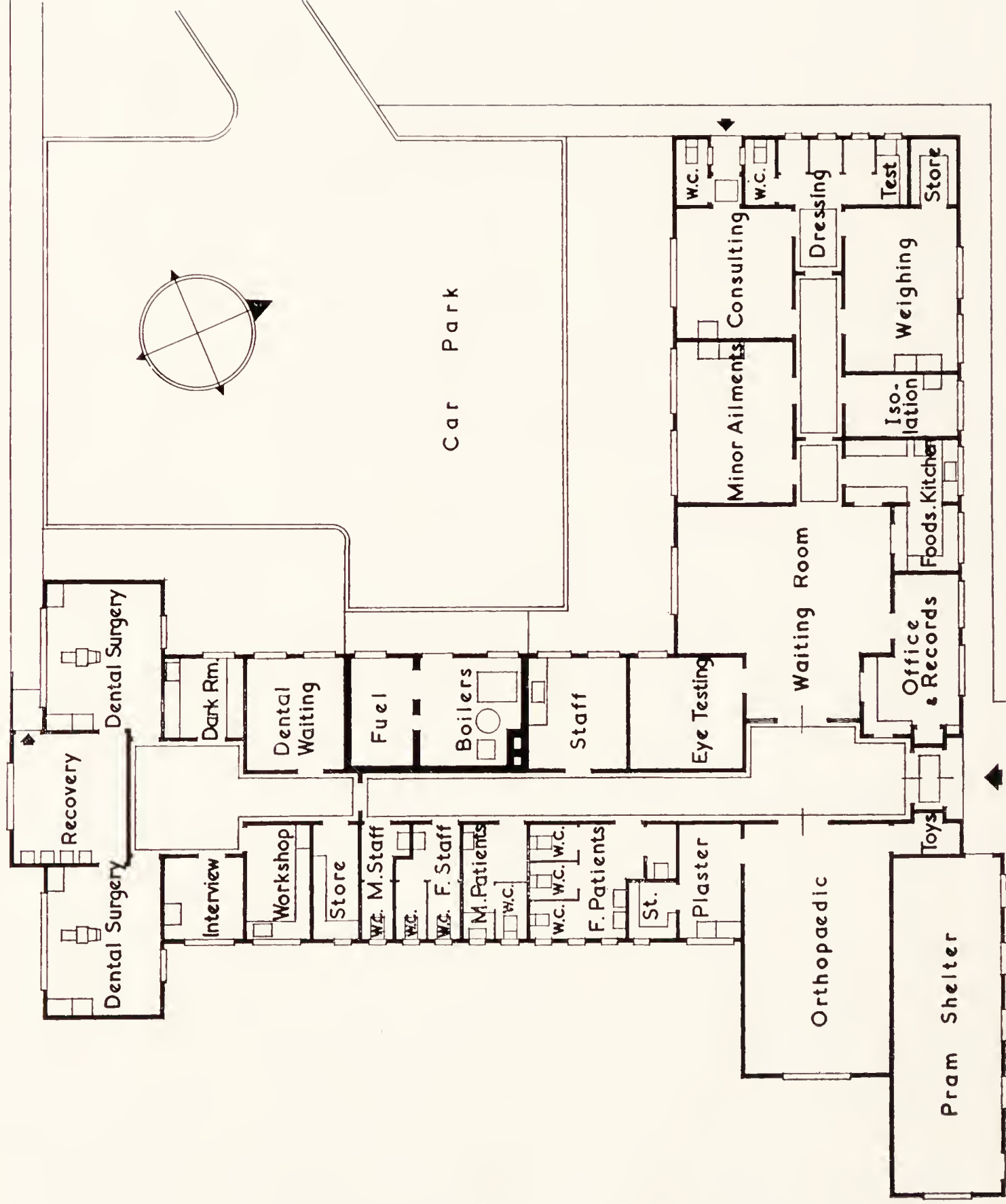
THE WAITING ROOM.



Photo : E. Nixon Payne, Chelmsford.

THE DENTAL SURGERY.

CHIGWELL: HEALTH SERVICES CLINIC.



OTHER ILLNESSES

Recuperative Holiday Homes

During the year, acting on recommendations made by doctors, arrangements were made for 456 patients to be sent away for a short holiday in order to complete their recovery following an illness. This number is 89 more than in the previous year.

The holiday homes to which patients are sent are mainly those run by charitable organisations and in which charges are reasonable although they may vary considerably as between the different homes. As a result of further consideration of Ministry of Health Circular 100/48, dated June, 1948, it was decided to make a standard charge of £2 5s. 0d. a week to patients availing themselves of convalescent facilities irrespective of the actual charge made by the home to which they are sent. This standard charge is subject to abatement in accordance with the County Council's scales. The convalescent homes which are most used therefore are those in which the charges vary least from the standard charge, although in exceptional circumstances arrangements are made with other homes if they are considered to be more suitable for particular patients.

Loan of Sick Room Equipment

The scheme for the loan of articles of sickroom equipment was fully explained in the report for 1950. During 1951 a variation was made in the system of charges and for an experimental period of one year no charge will be made for equipment borrowed from the County Council's depots. The British Red Cross Society and the St. John Ambulance Brigade run independent depots and have continued to co-operate informally with the County Council. During the year, 894 articles were loaned by home nurses and 722 articles were loaned through Area stores. The latter provision included such items as wheel chairs, spinal carriages and commodes.

INFECTIOUS DISEASES

A summary of the notifications of infectious diseases in the various County Districts during 1951 is set out in Table IV on page 123. The table shows that, after correction for wrong diagnosis, 41,195 persons were notified as suffering from infectious diseases compared with 22,844 in 1950. The number of notifications of several diseases increased, but over 90 per cent. of the increase was due to *Measles* (27,347 cases), the incidence of which was considerably higher than for any previous year since notification of the disease became obligatory in 1939. The number of cases notified rose sharply after the "trough" in September, 1950, and by December, 1950, the average weekly number of cases was appreciably above normal, even for a year with a winter epidemic. The number of cases fell slightly during January and then rose again. Over 1,000 cases were notified in each of the weeks between 4th February and 7th April, the highest number being 1,870 in the week ended 10th March. For the rest of the year, the number of cases declined so that by December, 1951, an average of only 15 cases a week was notified. In spite of the large number of cases only nine deaths from measles were registered.

The first quarter of 1951 was also marked by an exceptional prevalence of whooping cough and acute pneumonia. The number of cases of *Whooping Cough*

notified during the year (8,096) was higher than in any other year since notification commenced in 1939. It compares with 6,962 cases in 1950, which was itself an exceptionally high figure. The distribution in time closely followed that of measles—a sharp rise towards the end of 1950, a peak in February, 1951, and a decline for the rest of the year. The number of cases at the end of the year was, however, 50 a week compared with 15 for measles. As in the case of measles, mortality was low, 11 deaths being registered during the year.

The most notable illness of the first quarter of 1951, however, was influenza. Although influenza is not notifiable, an epidemic is always accompanied by a rise in the number of cases of *Acute Pneumonia* which includes influenzal pneumonia. The peak week in 1951 ended on 20th January, when 128 cases were notified. This was ten days later than the peak of the epidemic as measured by the number of new claims to sickness benefit (see page 26). The total number of cases notified during the year was 1,502 compared with 1,192 in 1950. The number of deaths registered as “pneumonia” was 858, a death rate per 1,000 population of 0.54, and as “influenza” 329, a death rate of 0.21. Both these rates were the highest in the County since 1943.

The number of cases of *Scarlet Fever* notified was 1,800 compared with 2,609 in 1950 and 2,368 in 1949. The incidence in 1951 approximated closely to that in the years 1946–48.

The low incidence of *Diphtheria* was maintained, only four of the cases originally notified being confirmed. There were no deaths.

Sixty cases of *Acute Poliomyelitis* were notified, 31 as paralytic and 29 as non-paralytic poliomyelitis. The proportion of non-paralytic cases was considerably higher than in previous years, and may indicate that not all these cases were in fact poliomyelitis. The total of paralytic and non-paralytic cases approximated to the number of cases notified in 1948 as acute anterior poliomyelitis or as acute poliomyelitis under the regulations in force at that time. Incidence was considerably less than in any other year since 1946.

Incidence of other notifiable diseases affecting the central nervous system was also low, the figures being :—

			1951.		1950.
Meningococcal infection	..	..	38	..	40
Acute encephalitis (infective)	..	..	2	..	6
Acute encephalitis (post-infectious)		..	1	..	3

There was a sharp increase in 1951 in the number of notified cases of *Dysentery*. There were 989 cases notified compared with 355 in 1950, which was the highest figure since 1945 when 558 cases were notified. The increase in 1950 was due largely to cases which occurred towards the end of the year. Incidence rose still higher in the early months of 1951 but the abnormal prevalence had subsided by the end of June.

More cases of *Puerperal Pyrexia* were notified in 1951 than in any other year since 1945. This is no doubt in part due to the new Puerperal Pyrexia Regulations which came into operation on 1st August. Over 80 per cent. of the cases were in respect

institutional confinements, the number of cases in domiciliary practice being 47 compared with 23 in 1950.

There was one case of *Smallpox* in a child aged 12 years who was a passenger in a ship which docked at Tilbury. The case had been diagnosed as chickenpox and was removed to a small isolation hospital in Essex, but on the following day a consultant diagnosed smallpox. The child was removed to Long Reach Hospital, Dartford. There were no secondary cases.

Virological Investigation

At the request of the Medical Research Council, certain Medical Officers of Health in the County took part in an investigation to determine the extent to which the poliomyelitis virus is present in sewage during epidemic and non-epidemic periods of the disease. The part of the Medical Officers of Health was to arrange for the taking of swabs from certain predetermined sewer points on two occasions during the first six months of the year before the poliomyelitis normally becomes prevalent and to submit them to the nearest Public Health Laboratory. Should a confirmed case occur in any of the areas, further virus investigations were to take place. The results of the investigations have not so far been published.

VACCINATION

The following table shows the number of vaccinations and revaccinations carried out during 1951 :—

Age at date of Vaccination	Under 1	1	2—4	5—14	15 and over	Total
Number vaccinated	8,178	771	975	1,306	2,056	13,286
Number re-vaccinated	14	7	147	637	6,273	7,078

There has been a considerable increase in both vaccinations and re-vaccinations since 1949, as may be seen from the following figures :—

	1949.	1950.	1951.
Number vaccinated	.. 6,651	.. 9,256	.. 13,286
Number re-vaccinated	.. 1,601	.. 2,792	.. 7,078

The infant acceptance rate in 1951 was 34.9 per cent. compared with 27.2 per cent. in 1950.

The number of vaccinations of children under 14 was about the same as during the period 1942–45, less than in 1946 and 1947 and greater than in every other of the last 10 years. The number of vaccinations each year is closely connected with the number of births, as a large proportion of them are of infants in their first year. Expressing the number of vaccinations of children under 14 as a percentage of the number of births, we find that immediately pre-war vaccinations numbered about 36 per cent. of the number of births, the percentage dropped to 31 in 1940, rose to 52 in 1943 and to 59 in 1946–47, in spite of the fact that the number of births in those years was con-

siderably more than previously or subsequently. Thereafter there was a steep drop to 24 per cent. in 1949, followed by a recovery to 47 per cent. in 1951. The diagram on page 119 shows these variations.

When the number of vaccinations is examined quarter by quarter it is found that a greatly increased number of vaccinations, amounting to over 4,200 was carried out in the first quarter of 1951 compared with a quarterly average of 2,314 during 1950. This was probably connected with public apprehension following the cases of smallpox which occurred early in 1951 in the Brighton area. After the first quarter the number of vaccinations fell, but during the last six months of the year one-third more vaccinations were carried out than during the corresponding period of 1950. The number of re-vaccinations each quarter followed the same pattern, but the increase during the first quarter of 1951 was relatively greater.

The following table shows the number of vaccinations and re-vaccinations carried out in the Health Areas, the infant acceptance rate and the number of persons per thousand of the population who were re-vaccinated :—

<i>Health Area</i>	<i>Number Vaccinated</i>	<i>Number Re-vaccinated</i>	<i>Infant Acceptance Rate</i>	<i>Re-vaccinations per 1,000 population</i>
North-East Essex ..	1,390	499	38.5	2.7
Mid-Essex	1,941	1,087	42.2	5.2
South-East Essex ..	683	266	24.6	2.6
South Essex ..	2,369	1,859	43.5	8.6
Forest	1,883	898	39.7	4.5
Romford	1,267	507	34.1	5.7
Barking	310	119	14.5	1.5
Dagenham	459	192	12.8	1.7
Ilford	1,538	755	42.0	4.2
Leyton	647	607	26.9	5.8
Walthamstow ..	799	289	33.5	2.4
Administrative County	13,286	7,078	34.9	4.4

The acceptance rate varied from under 15 per cent. in Dagenham and Barking to over 42 per cent. in South Essex, Mid-Essex and Ilford. There were no important alterations in the relative levels of infant vaccinations in the Health Areas which have now remained remarkably constant for at least three years. In every Area except two the number of persons re-vaccinated in 1951 was more than twice the number in 1950. In four Areas re-vaccinations increased to more than three times their number in 1950.

These included South Essex with the high rate per 1,000 of 8.6, Romford with 5.7 and Leyton with 5.8, more than seven times its 1950 rate.

During the year only one case of post-vaccinal complication was reported; a woman who had had primary vaccination and who soon recovered.

IMMUNISATION AGAINST DIPHTHERIA

In 1951, 21,149 children under 15 years of age completed a full course of primary immunisation against diphtheria. Of these, 18,192 were under the age of 5 and 2,957 between 5 and 15. In 1950, the figures were 19,151, of whom 16,313 were under the age of 5 and 2,838 between 5 and 15. The increase of about 2,000 was due mostly to the larger number of immunisations among the younger children during the second half of the year. Possibly the fact that there were very few cases of poliomyelitis in 1951 may have contributed to this increase.

There was also an increase in the number of reinforcing injections, which totalled 17,774 in 1951 compared with 15,555 in 1950. Every Health Area except two carried out more primary immunisations than in 1950 and more reinforcing injections were given in most Areas. The figures are :—

<i>Health Area</i>	<i>Primary Immunisations</i>		<i>Reinforcing Injections</i>	
	<i>1950</i>	<i>1951</i>	<i>1950</i>	<i>1951</i>
North-East Essex ..	2,038	2,163	983	1,212
Mid-Essex	2,259	2,821	3,527	2,308
South-East Essex	1,183	1,235	753	879
South Essex	3,155	3,556	2,541	4,250
Forest	2,428	2,892	1,354	1,773
Romford	1,237	1,648	1,213	1,178
Barking	1,136	868	1,278	653
Dagenham	1,422	1,346	284	969
Ilford	1,650	1,812	1,487	2,043
Leyton	1,309	1,331	230	484
Walthamstow	1,334	1,477	1,905	2,025
Administrative County ..	19,151	21,149	15,555	17,774

The following table shows the number of children who had completed a full course of primary immunisation at some time before 31st December, 1949, and their ages at that time, according to the records held at the Health Area Offices :—

<i>Health Area</i>	<i>Under 1</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5-9</i>	<i>10-14</i>	<i>Totals</i>
North-East Essex ..	93	1,163	1,562	2,091	2,196	10,251	8,742	26,098
Mid-Essex ..	240	997	2,255	2,288	2,177	9,889	11,825	29,671
South-East Essex ..	74	786	1,047	1,319	2,328	4,328	3,281	13,163
South Essex ..	218	1,857	2,347	2,577	3,080	14,701	10,257	35,037
Forest	197	1,658	2,042	2,756	2,187	9,776	7,736	26,352
Romford	29	724	1,090	1,094	1,300	6,138	4,995	15,370
Barking	76	656	852	978	1,324	5,206	4,479	13,571
Dagenham ..	105	934	1,188	1,457	1,625	6,466	7,259	19,034
Ilford	116	1,299	1,893	2,203	3,747	15,951	8,999	34,208
Leyton	89	895	1,122	994	2,148	6,380	4,106	15,734
Walthamstow ..	149	1,076	1,168	1,575	1,920	8,357	6,958	21,203
Administrative County	1,386	12,045	16,566	19,332	24,032	97,443	78,637	249,441

The percentage of children under 5 who had been immunised by the end of 1951 was 52.1 compared with 53.2 one year earlier. The corresponding figures for the 5-14 age group were 79.3 and 74.6.

In my last report, I noted a tendency for the percentage of infants immunised in infancy to decrease; it was found that an appreciably smaller percentage of the babies born in 1949 had been immunised by 31st December, 1950, than of 1948 babies by 31st December, 1949. It is now possible to follow these two groups of children for a further year. During 1950, 2,636 children born in 1948 were immunised, so that by 31st December, 1950, nearly 69 per cent. of the babies born in 1948 had been immunised. Similarly during 1951, 3,842 children born in 1949 were immunised, giving a percentage of 66 immunised by 31st December, 1951. The difference between the percentages immunised at an average of $2\frac{1}{2}$ years has decreased to about one-third of the difference at an average age of $1\frac{1}{2}$ years. It is to be hoped that the remaining lag will be made up in subsequent years. These figures take no account of immigration into the County, which is likely to affect the size of the percentage immunised slightly but to leave the relative levels unchanged.

The percentage of 1950 births immunised before 31st December, 1951, was 52, only slightly higher than for the 1949 births. In seven of the Health Areas the percentage was between 51 and 57, but in Leyton and Walthamstow it was over 60 and in the two predominantly rural areas of North-East Essex and Mid-Essex 45 and 31 per cent. respectively.

IMMUNISATION AGAINST WHOOPING COUGH

The following table gives comparative figures for whooping cough immunisation for the years 1950 and 1951 :—

		Age at Date of Final Injection.					Total.
		0-1	1-4	5-14			
1950	..	784	.. 878	.. 51	..	1,713	
1951	..	492	.. 1,446	.. 102	..	2,040	

The greatest increase in 1951 as compared with 1950 is in the 1 to 4 age group. This may partly be accounted for by the fact that during the year it was decided that injections against whooping cough could be given to children in day nurseries at the request of the mother.

ESSEX EPIDEMIOLOGICAL COMMITTEE

Two meetings of the Essex Epidemiological Committee were held during the year. The constitution of the Committee is as follows :—

Dr. H. Kenneth Cowan, County	..	Chairman
Medical Officer of Health		
Professor S. P. Bedson	.. ..	Consultant Adviser in Pathology, Ministry of Health
Dr. J. W. Lacey	..	} Pathologists
Dr. F. E. Camps	..	
Dr. M. Ravell	..	} General Practitioners
Dr. G. O. Barber	..	
Dr. A. M. McFarlan	.. ..	Department of Human Ecology, Cambridge University
Dr. R. Pilsworth	.. ..	Bacteriologist
Dr. W. H. Bradley	.. ..	Ministry of Health
Dr. F. R. Dennison	..	} Medical Officers of Health
Dr. C. Herington	..	
Dr. J. D. Kershaw	..	
Dr. J. S. Logan	.. ..

Papers were read on the following subjects :—

IMMUNISATION AGAINST WHOOPING COUGH. Dr. W. C. Cockburn, of the Medical Research Council, gave an interesting account of the work which he carried out in connection with his investigation into the comparative efficacy of different antigens in immunisation against whooping cough. A full report of the results of the trials was published in the British Medical Journal on 30th June, 1951. The lecture was followed by a useful discussion.

INFECTIVE HEPATITIS. Dr. A. M. McFarlan, of the Department of Human Ecology, Cambridge University, gave a paper on Infective Hepatitis and traced the history of the disease since it became notifiable in East Anglia in 1943. He made the following points :—

- (1) So far as seasonal variation is concerned the incidence is at a minimum in summer, rises in autumn and tails away in December, then rises again in the spring, with two peaks—one in May and one in autumn.
- (2) From notifications in the last three years it has been found that the attack rate in the 5 to 10 age group is higher than the 10 to 15 age group, this being the opposite of what happened previously. Furthermore, 40 per cent. of those notified were over 15, which was much higher than usual.

- (3) The geographical spread is suggestive of a spread from person to person ; it is noticeable also from village to village.
- (4) In families with more than one case they were nearly always serial cases with the recognised incubation period between, thus differing from poliomyelitis.

Other matters discussed at the meetings included poliomyelitis, influenza and vaccination against smallpox.

VENEREAL DISEASES

Returns from Special Clinics show that during 1951, 156 new cases of syphilis and 242 new cases of gonorrhoea were diagnosed in Essex patients compared with 162 and 272 respectively in 1950.

The following table analyses the cases according to the situation of the clinics at which the diagnoses were made :—

Place of Diagnosis.	Syphilis.	Gonorrhoea.	Other Conditions.
Essex	84	118	752
London	57	86	815
Other Home Counties	14	38	245
Elsewhere ..	1	—	6

The follow-up of persons who are being treated for venereal disease and of those thought to be a source of infection is undertaken in some parts of the County by a Social Worker in the service of the North-East Metropolitan Regional Hospital Board and in other areas by a senior member of my professional staff.

HEALTH EDUCATION

Doctors, Health Visitors, Home Nurses and Midwives employed in the Health Department are all health educators and are constantly diffusing information by giving advice in the homes, in the schools and at clinics. Although this is by far the best method of health teaching, since it is given to those who are seeking knowledge, it nevertheless entails a great deal of effort to reach comparatively few people in a given time. Therefore, in addition to this, a concentration of effort whereby groups of people can be taught is obviously advantageous, and during the year this method of health education has expanded both in interest and in activity as the help with material and advice which can be given by the County Health Education Organiser has become more widely known. Requests for his assistance are increasing. Some of the methods by which interest has been stimulated, both among the staff and among the public are as follows :—

Film Catalogue

An up-to-date catalogue of films available on health subjects and the sources from which they can be procured has been prepared and a copy has been sent to each of the 11 Areas in the County. It is most useful as a guide to those wishing to find a film which will emphasise points given in a talk. The catalogue will be completely revised from time to time, but as an interim measure new sheets are prepared and distributed as information regarding the addition of new films or the withdrawal of old ones becomes known.

Film Strip Projector

During the year a film strip projector was purchased and is already proving a most useful adjuvant to those engaged in teaching small groups. It is economical in man-power in that it can easily be operated by the speaker. It is of great advantage for those inexperienced in public speaking, since the attention of the audience is focussed on the screen and not on the speaker, who can stand by the machine at the back of the hall and use teaching notes if necessary. It is therefore an excellent first step in giving young speakers confidence to address audiences. It is, of course, also of inestimable value as a visual aid to practised speakers.

The machine can be adjusted for the showing of miniature or standard slides.

A catalogue of the film strips on health matters which are available from various sources has been prepared and circulated to the Health Areas, and as requests are received for the film strips those which seem to be most suitable are purchased. In this way a small library of film strips is gradually being built up.

Film Shows

With the co-operation of the Central Office of Information arrangements were made for the showing of 34 films on health subjects. Films were mostly shown at clinics or to women's organisations in the County and were followed by short talks and discussions. Appreciation must be expressed for very valuable assistance which has always been given by members of the staff of the Central Office of Information, both in showing films and giving advice. In view of the cessation of their activities the new film projector which was ordered during the year will be of great value.

Stillograph

Although posters are useful as a means of health education, more attention is usually given to a picture or exhibit which is lit up and which moves. For this reason two stillographs were purchased during the year. These machines are attached to a power point. They are designed to present a theme composed of 11 photographs arranged in sequence, or 11 written slogans similarly arranged. Two photographs are on view at a time, one above the other, the 9 others being temporarily hidden from view. Every six seconds the upper photograph automatically drops to the lower position and is replaced by another—the lower one disappears. This goes on until the whole series has been shown. It is possible by taking photographs or writing slogans to demonstrate any theme. Several have already been prepared, dealing with such matters as the importance of clean food and the importance of mass radiography, and others are in course of preparation. This is an excellent medium for use in the waiting rooms at clinics or at exhibitions.

Health Education Courses

Two Courses were held, one in March and the other in November. Each Course was attended by approximately 150 members of the medical and nursing staff of the Department who came from all parts of the County. In the first, the Clinical Director of a Research Laboratory gave a lecture on "Recent Trends in Immunisation with special reference to Diphtheria", and in the second a Psychologist gave lectures on

“The emotional needs of the young child” and “The emotional needs of the adolescent”. Both Courses were followed by discussion. Such meetings not only gave the members of the staff the opportunity of acquainting themselves with new ideas but also gave them the added stimulation of meeting one another.

Lectures

Apart from the talks which are constantly being given at welfare clinics to groups of mothers and senior girls paying periodic visits to clinics, approximately 100 lectures have been given to organised groups, including women's clubs, men's clubs, welfare organisations and school leavers.

Exhibitions

As in previous years, the Health Department again arranged an Exhibition at the Essex Agricultural Show. In a large marquee, giving approximately 126 feet of show-space, the various activities of the Department were portrayed.

Small health exhibitions were also held in four Areas in the County during the year and, in addition, exhibitions on clean food were arranged by Medical Officers of Health assisted by the County Health Education Organiser.

One particularly useful method of exhibiting health education material has been devised by the adaptation of an empty shop window in a main street in the Metropolitan part of the County. Window space is made to look like the interior of a camera converging on an aperture in which one topic is shown at a time. The topic is changed at intervals of three weeks.

General

A grant of £777 was made to the Central Council for Health Education for the year. Health education topics, posters, pamphlets and leaflets have been received from them. Literature was also received from the Home Safety Section of the Royal Society for the Prevention of Accidents, to whom the usual annual contribution was made.

DOMESTIC HELP SERVICE

In 1951, as the following tables show, there were signs that the Domestic Help Service, which had been steadily growing, was becoming more stabilised. Although the number of hours worked in 1951 increased to 1,142,459 (compared with 1,131,344 in 1950), the total number of cases helped in 1951 decreased to 7,486 as against 7,577 in 1950. The number of new cases helped showed an even greater decrease, being 5,465 in 1951 compared with 6,050 in 1950. Heavy demands continued to come from the chronic sick, who have been allocated by far the greater number of hours and whereas in 1950 the domestic help time given to them comprised almost half the total in 1951 it was considerably more than half. Furthermore, although the number of new cases helped decreased in most categories, the number of new chronic sick cases increased by over 200. In addition, 138,654 hours were worked for 685 aged non-sick persons :—

(a) *Domestic Helps Enrolled.*

			At 31-12-51.		At 31-12-50.
Full-time Helps	..	..	106	..	91
Part-time Helps	..	..	1,310	..	1,342
			<hr/>		<hr/>
			1,416	..	1,433
			<hr/>		<hr/>

(b) *Total Cases attended and hours worked.*

Category of Case.			Cases Attended		Hours Worked	
			1951	1950	1951	1950
Maternity	..	..	2,188	2,560	162,252	204,867
Acute Sick	..	..	1,130	1,443	68,360	112,860
Chronic Sick	..	..	2,877	2,154	622,546	519,507
Tuberculosis	..	..	330	321	97,816	92,080
Others	..	..	961	1,093	191,485	202,030
Total	..	..	7,486	7,571	1,142,459	1,131,344

(c) *Total Cases attended full- and part-time.*

Category of Case			Full-time		Part-time	
			1951	1950	1951	1950
Maternity	..	..	1,240	1,473	948	1,087
Acute Sick	..	..	47	64	1,083	1,379
Chronic Sick	..	..	27	28	2,850	2,126
Tuberculosis	..	..	11	—	319	321
Others	..	..	15	36	946	1,057
Total	..	..	1,340	1,601	6,146	5,970

(d) *New Cases helped during the year.*

Category of Case			1951	1950 (estimated)
Maternity	..	..	2,131	2,500
Acute Sick	..	..	1,026	1,340
Chronic Sick	..	..	1,658	1,440
Tuberculosis	..	}	650	770
Others	..			
Total	..	..	5,465	6,050

(e) *Cases being helped at the end of each quarter.*

		<i>Chronic Sick</i>	<i>Others</i>	<i>Total</i>
31-3-50	..	908	857	1,765
30-6-50	..	1,070	830	1,900
30-9-50	..	1,150	760	1,910
31-12-50	..	1,219	802	2,021
31-3-51	..	1,366	838	2,204
30-6-51	..	1,447	810	2,257
30-9-51	..	1,509	786	2,295
31-12-51	..	1,613	784	2,397

The problem of the chronic sick is one in which the Health Department should, and does, play a vital part. Many of these patients are not in need of full hospital care, added to which not only do they prefer to be at home but it pays to keep them there. As the figures show, the domestic help service is playing no small part in achieving this object, which, of course, is possible because of the assistance also rendered by the home nursing service. What is required is a partnership between the hospital and the Health Department in order to ensure that each is playing the proper role and that when acute illness overtakes the patient immediate admission to hospital will be arranged or, conversely, that adequate home help can be provided when a patient is ready to be discharged from hospital.

The problem of the aged non-sick, many of whom are on the border line of failing health, is very similar. Everything possible should be done to keep them at home as long as possible, but, here again, if they suddenly require full hospital treatment there should be means whereby it can speedily be arranged. In this matter there should also be close liaison with the Welfare Department responsible for the provision of hostel accommodation under Part III of the National Assistance Act, 1948, since the social circumstances may make it impossible for an old person, even although not requiring hospital care, to continue living at home.

The newly appointed County Domestic Help Organiser, who took up her duties in February, paid 31 visits, each of an average duration of two days, to the eleven Health Areas. During the visits suggestions were made for the improvement of the service and in the company of the Area Domestic Help Organisers calls were made upon a total of 726 persons in receipt of help.

During the year the posts of Area Domestic Help Organisers, which had been held in a temporary capacity, were made permanent and were graded as A.P.T.C. II appointments.

Arrangements were again made with the National Institute of Houseworkers, Ltd., to hold a further series of examinations for domestic helps, at the end of which

the successful candidates are presented with a diploma of proficiency. The introduction of short courses of training has also been under consideration, since it is thought that such courses would be of great benefit to the women undertaking the service.

CHIROPODY

A chiropody service continued to be provided at 12 clinics situated in the South-East Essex, South Essex, Forest, Barking, Dagenham, Leyton and Walthamstow Health Areas.

Following is a table of attendances :—

	Men.		Women.		Children.
Number of cases treated in 1951	2,652	..	8,862	..	1,374
Number of attendances	.. 14,889	..	51,506	..	5,216

As the table shows, the number of women who attended at the clinics was more than three times the number of men. The reason for this may, to some extent, be due to the fact that there are more sessions held during the day, when most men are at work, than during the evening, but it is probably in great part due to the different usage regarding footwear for men and women.

Chiropodists in the County have estimated that from 60 to 80 per cent. of foot troubles are caused by wearing ill-fitting shoes. Education regarding footwear is constantly being carried out at Foot Clinics, Orthopædic Clinics, Welfare Clinics and School Clinics, and it is true to say that the demand for more sensible shoes is increasing. Following this demand, the production of properly shaped shoes, more especially for children, has improved considerably. There is no doubt that the proper way for a Health Department to tackle the problem of foot troubles is by the education of the public in foot hygiene and in the right type of shoes ; as the demand increases supply will follow.

CANCER ACT, 1939

It was again not necessary to take any action during the year under Section 4 of the Cancer Act, 1939—regarding the prohibition of certain advertisements offering remedies or treatment for cancer.

FACTORIES ACTS, 1937 AND 1948

No action was necessary under Section 126 of the Factories Act, 1937, as amended by the Factories Act, 1948, whereby the County Medical Officer of Health is liable under certain circumstances to perform or arrange for the performance of the functions of Appointed Factory Doctors.

THE NATIONAL ASSISTANCE ACT, 1948—PART III

Medical Supervision of Institutional Accommodation

The medical supervision of hostels for the aged is undertaken by the Health Department on behalf of the Welfare Department. During the year two hostels were temporarily closed for adaptations and four new hostels were opened. The number of

hostels in use during the year was 12, with accommodation for a total of 315 old people. In addition, 130 old people were accommodated in a mixed Institution which has not been taken over by the Regional Hospital Board.

Routine visits were paid to the hostels by a Senior Medical Officer at approximately six monthly intervals and special visits were paid either at the request of the Welfare Department or if for any reason it was considered to be necessary.

The following points call for comment :—

PROVISION OF ISOLATION AND NURSING FACILITIES. The need for the provision of an isolation room in all hostels was mentioned in my report for 1950, and as new hostels are being opened a room is being set aside for this purpose. In one hostel, in which no isolation room had been provided, there was a very severe epidemic of influenza early in the year which affected almost all the residents and staff. It may be that proper isolation of the first case would have had some effect on the course of the epidemic, but in any case the nursing of sick people in the same room as others who are well is very disturbing, especially during the night.

Although theoretically provision should only be made in hostels for the treatment of minor ailments and illnesses, in practice patients with severe illnesses, often lasting for several weeks, have to be nursed because of the great difficulty of arranging hospital accommodation. The services of a visiting district nurse are, of course, available, but the condition of the patient often requires much more frequent attention than she can give; moreover, it is required during the night as well as during the day. The nursing, therefore, devolves on the staff of the hostel, who are neither engaged nor trained as nurses. It is important that the responsibility of administering dangerous drugs or the carrying out of skilled nursing duties should not be forced upon them. As time goes on it is becoming more and more evident that a proper sick bay and a modicum of nursing staff should be attached to these institutions.

LAUNDRY. Arrangements are made in all the hostels for the soiled linen to be collected weekly by a private laundry firm operating in the area. There are no facilities either for washing or drying clothes in the hostels. These problems which are created when, as not infrequently happens, incontinent patients are accommodated can be appreciated.

ATTITUDE OF PATIENTS. It is particularly noticeable when visiting hostels that many of the residents are just sitting down and doing nothing. The same state of affairs was very evident in the day rooms of the old workhouses. At that time it was thought that much of the apathy of the inmates was due to the cheerless surroundings and to the fact that little or no attempt was made to keep them interested or occupied. Neither of these accusations can be levelled against the present hostels which are very bright and extremely comfortable and where the wardens, in many cases, exercise great ingenuity in an endeavour to keep the old people interested and to prevent boredom. At one hostel which is within the precincts of a hospital the occupational therapist attached

to the hospital tried very hard indeed to interest the residents in some form of handicraft, but the response was very meagre. At another hostel members of an outside voluntary organisation made a practice of paying weekly visits to the hostel in order to entertain the residents, but again the response was disheartening. A resident in another hostel had not been out of the hostel for seven months although she was quite able bodied. Many of the residents do not even read the newspapers, which are available, and with the possible exception of the 9 o'clock news, do not listen to the wireless. They just sit and their only interest seems to be the next meal. It is difficult to understand the reason for this apathy, although some residents, when asked, said that having worked hard all their lives they were now going to do nothing. A more likely explanation, however, is that they have been moved late in life from familiar surroundings and routine duties and cannot easily adapt themselves to a new way of life. If this is so, it is yet another reason for keeping the old people in their own homes as long as possible. This lack of interest is not invariable nor is it determined by age or sex. Some of the residents are very active both mentally and physically.

In addition to the visits paid to the hostels by the Senior Medical Officer visits are paid by the County Health Inspectors who report on the purity of the water supply and take samples of milk for laboratory tests.

Welfare of the Blind

During the year 641 persons were examined by ophthalmic specialists for certification as blind or partially-sighted persons. The arrangements for examinations have been continued as in previous years, namely, persons are normally seen by the ophthalmic specialist at his surgery or at the local hospital, but when it is impossible for the patient to travel a domiciliary visit is arranged.

The Welfare Committee, who administer the work of after-care of blind persons, employ 14 home teachers, two assistant home teachers and one placement officer. These officers include in their routine visits to blind and partially-sighted persons instruction in simple pastime occupations and the reading and writing of embossed literature; they also offer assistance in various methods of overcoming the effects of the disability.

On 31st March, 1952, there were 2,647 persons on the Blind Register compared with 2,558 one year previously. The age distribution of the registered blind was as follows :—

	0-4	5-15	16-39	40-64	65 and over	Total
Males ..	11	27	150	392	582	1,162
Females ..	9	30	95	399	952	1,485
Total ..	20	57	245	791	1,534	2,647

The proportion of registered blind who were 65 years of age or more was one-half for males and nearly two-thirds for females. The higher proportion for females is due to their greater longevity and the larger number of females on the register is also due to this. Below the age of 50, blind males numbered 60 more than blind females.

Comparing these figures with similar ones published in the Annual Report for 1948 shows that there are now less blind persons between the ages of 16 and 40 and more at all other ages.

In the year ended 31st March, 1952, there were seven new registrations of children under the age of five compared with only one in the year ended 31st March, 1948 ; at least six of these were blind before the end of their first year.

New registrations during the year numbered 332, of which 214 were over the age of 70 at 31st March, 1952.

Of the 439 male and 376 female registered blind persons between the ages of 16 and 60, 273 males (62 per cent.) and 60 females (16 per cent.) were classed as employable. The figure for employable females does not include 105 classed as "not available for employment", mostly because they are married or have other domestic responsibilities.

The actual number of employed blind persons of all ages was 296, the principal occupations followed being as indicated below :—

Factory operatives	..	47	Dealers, Agents and Shop-		
Poultry Keeping and			keepers	..	.. 18
Agricultural Workers	..	27	Machine Knitters	..	.. 16
Piano Tuners	..	24	Mat Makers	..	.. 16
Telephone Operators	..	22	Basket Workers	..	.. 15
Clerks and Typists	..	19			

SECTION VI—THE MENTAL HEALTH SERVICE

WHEN the Mental Health Service was inaugurated in July, 1948, it was appreciated that Local Health Authorities would have little idea of their actual man-power needs to operate such a combined service, and where, as in Essex, it was necessary to cover substantial areas, both urban and rural, with a 24-hour service, it was still more difficult to assess with much accuracy the number of staff that would be necessary. Despite the problem of the shortage of hospital accommodation, which is a national as well as a regional problem, the Mental Health Service operated fairly smoothly, but early in 1951 it was felt it had been functioning long enough to enable a fair estimate to be made as to the adequacy or otherwise of the staff engaged in this work, after paying due regard to what might be considered probable future commitments and anticipated normal expansion of the Service. After careful investigation, it was decided to merge some of the existing nine areas into which the County had been divided for Mental Health purposes and to reduce the number of Duly Authorised Officers from 30 to 24. At the moment the number of Duly Authorised Officers has been reduced to 28, and reduction to 24 will be effected with any consequential merging of areas as opportunity occurs, e.g. officers reaching the age for retirement will not be continued in the Council's service and any officer who resigns will not be replaced until the number is reduced to 24. The reduction in the number of Duly Authorised Officers which it has been possible to effect has, of course, been accompanied by a consequential economy in County cars, as the Duly Authorised Officers, with a few exceptions, are provided with cars. Furthermore, any amalgamation of areas will reduce the number of sub offices and this will also contribute to the economy which will be effected. Despite these economies, it has been possible to maintain a full Mental Health Service, although the number of cases to be dealt with shows a steady increase.

Draft Proposals modifying the Council's existing Proposals relating to Mental Health were submitted to the Minister of Health during the year. These Proposals, if approved by the Minister, will provide—

- (a) convalescence for short terms in convalescent homes conducted by voluntary organisations ; and
- (b) appropriate measures of social after-care in the community, including the establishment of social clubs for such patients or the utilisation of existing social clubs conducted by voluntary organisations ;

for patients discharged from Mental Hospitals who desire such assistance and whose future care is the responsibility of the Authority.

Administration

The constitution of the Mental Health Sub-Committee remains at 22 Members, meetings being held on the fourth Friday of each month with the exception of August. The co-operation with Regional Hospital Boards referred to in previous Annual Reports continued.

The National Association for Mental Health and the Guardianship Society have been most helpful in securing holiday accommodation for defectives, but it has not been found necessary to delegate any duties to voluntary associations.

Work undertaken in the Community

The number of visits paid by Duly Authorised Officers during the year in respect of all classes of patients is given in the following table :—

MENTAL DEFICIENCY ACTS				Brought forward .. 16,192	
New cases	367			LUNACY ACTS	
Statutory Supervision ..	10,951			Preliminary investigations	2,742
Voluntary	1,948			Sections 14 & 15 (certified)	1,053
Case notes	71			Section 11 (urgency orders)	310
Licence cases	852			Section 20 (three day orders)	197
Home circumstances reports				Section 21 (14 day orders)	7
for visitors	680			MENTAL TREATMENT ACT	
Guardianship cases ..	752			Section 1 (voluntary) ..	340
Holiday, licence and dis-				Section 5 (temporary) ..	150
charge applications ..	571			Inventories prepared ..	10
				Other visits	4,818
					25,819
Carried forward ..	16,192				

Prevention of Illness, Care and After-Care

The experiment referred to in the report for last year regarding convalescence for patients discharged from Mental Hospitals has been discontinued pending the introduction of a wider service as envisaged in the Proposals mentioned earlier in this report. The Duly Authorised Officers have continued to provide an after-care service for patients discharged from Mental Hospitals or from H.M. Forces owing to mental ill-health and much useful work has been achieved in this direction. Generally speaking the patients leaving Mental Hospitals who are referred to the Council's Officers for after-care are those patients needing social after-care, e.g. those patients who are likely to need help in re-establishing themselves in employment or retaining employment, in their domestic affairs and in obtaining housing accommodation, although, as will be appreciated, there is little that can be done on this particular problem. Patients discharged from the Forces owing to mental ill-health very often need guidance in the selection of suitable employment as many of them entered the services before they had really established themselves in any trade or profession.

Lunacy and Mental Treatment Acts, 1890-1930

The number of persons suffering from mental illness who were admitted to Mental Hospitals during the year was as follows :—

als during the year was as follows :—			
	With the assistance of the Duly Authorised Officers.		Without such assistance.
LUNACY ACT, 1890			
Section 11 (Urgency Orders) ..	45	..	—
Sections 14 and 15 (Certified)	566	..	—
Section 20 (Three day Orders)	82	..	—
MENTAL TREATMENT ACT, 1930			
Section 1 (Voluntary) ..	244	..	1,146
Section 5 (Temporary) ..	77	..	6

Whilst these figures give some idea of the extent of the work which is going on in the community in dealing with persons suffering from mental illness, they cannot, of course, convey any idea of the countless problems with which the Duly Authorised Officers are frequently faced in dealing with these cases.

I think it is fitting that I should here mention the very great help that is frequently given by the Police, both County and Metropolitan, to the Duly Authorised Officers in dealing with difficult patients.

Mental Deficiency Acts, 1913-1938

Details of the ascertainment and disposal of persons reported to be mentally defective are given in the following tables :—

PARTICULARS OF CASES REPORTED DURING 1951

Cases reported by Local Education Authorities (Section 57, Education Act, 1944)—	Males.		Females.		Total.
(i) Under Section 57 (3) ..	89	..	55	..	144
(ii) Under Section 57 (5)—					
On leaving special schools	23	..	20	..	43
On leaving ordinary schools	18	..	15	..	33
Cases referred by the Police or by the Courts	8	..	7	..	15
Other defectives reported during 1951—					
(i) Found subject to be dealt with	7	..	7	..	14
(ii) Not at present subject to be dealt with	30	..	29	..	59
<hr/>					
Total number of cases reported during the year	175	..	133	..	308

DISPOSAL OF CASES

Those found subject to be dealt with—

	Males.		Females.		Total.
(i) Placed under Statutory Supervision	122	..	86	..	208
(ii) Taken to “ places of safety ”	1	..	1	..	2
(iii) Admitted to Institutions ..	4	..	6	..	10
(iv) Action not yet taken ..	2	..	3	..	5

Those not at present subject to be dealt with—

(i) Placed under Voluntary Supervision	41	..	33	..	74
(ii) Action unnecessary ..	5	..	3	..	8
(iii) Action not yet taken ..	—	..	1	..	1

Total	175	..	133	..	308
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The total number of patients ascertained as being defectives "subject to be dealt with" as at 31st December, 1951, was 3,443. These were classified as follows :—

	Males.	Females.	Total.
In Institutions	716	598	1,314
Under Guardianship	26	46	72
In "places of safety"	4	2	6
Under Statutory Supervision	1,105	941	2,046
Action pending	2	3	5
	<hr/> 1,853	<hr/> 1,590	<hr/> 3,443 <hr/>

In addition, there are in the community 1,266 defectives over whom voluntary supervision is exercised.

Patients under Supervision

The review of persons under supervision referred to in my last Annual Report continued throughout 1951, during which period supervision was suspended in respect of 49 patients. A further 44 such patients were transferred from "Statutory" to "Voluntary" status during the year. Here again the figures showing the number of cases dealt with or visits paid do not reflect the amount of time which is often spent in dealing with individual cases.

Occupation Centres

During the year notice to quit St. George's Church Hall, Rogers Road, Dagenham, was received, and in September, 1951, commodious premises were secured at St. Thomas's Hall, Haydon Road, Becontree, and the Centre is now designated as the Ilford Senior Occupation Centre. As it is indicative of the happy relationship which existed between the Council and the St. George's Church authorities, mention should be made of the fact that the patients and staff at this centre were invited to return to the old premises at Rogers Road, Dagenham, for a Christmas party kindly given by the Vicar and the Parochial Church Council of St. George's.

A new centre for boys was opened at St. Barnabas Church Hall, Walthamstow, providing training and occupation for up to 40 boys.

Improved arrangements for the transport of patients to the Chelmsford Centre were brought into operation in February and resulted in a considerable increase in attendance. It is expected that extensions to the transport facilities serving several other centres will come into effect early in 1952 in order that still more patients may have the opportunity for centre training. Coaches serving existing occupational centres cover some 300 miles a day, collecting the patients in the mornings and returning them in the late afternoons. The coach and driver are hired for this purpose, one of the occupation centre staff travelling with each coach as coach attendant. There are many problems in connection with the conveyance of these children and without the co-operation of the parents it would not be possible to continue these transport arrangements since some of the children have to be met at the appointed stopping places as they cannot make their own way home.

The supervisors keep progress records in respect of the defectives attending their centres and are thereby able rapidly to assess the progress and attainments of individual patients. The physical health of patients in junior centres is carefully supervised by regular medical examinations, and, where necessary, parents are advised to consult their private medical attendants.

At the close of the year there were 429 patients on the registers of the eight centres and an average daily attendance rate of approximately 65 per cent. was maintained throughout 1951.

Institutional Accommodation

The number of mental defectives whose names are on the list of those awaiting admission to institutions has risen steadily throughout the year, at the close of which there were 331 names on this list. Of these, many have been in need of institutional care for several years and in about 40 cases the need for admission is, for various reasons, of the gravest urgency. Whilst the difficulties which face the Regional Hospital Board in the provision of accommodation are fully realised the length of the waiting list clearly shows that the almost intolerable situation referred to in my Annual Report for 1950 has, in fact, worsened during 1951.

There is still need for relaxation of the law which requires the certification of defectives prior to admission to an institution. It is frequently desirable that for urgent domestic reasons a patient should be taken into care for a short period, but as the law now stands such a course is impossible and it is only by certification or by a very liberal interpretation of Section 15 of the Mental Deficiency Act, 1913, that such a case can at present be dealt with.

APPENDIX

FLUORINE AND DENTAL CARIES

Commencing in the autumn of 1950, inspections were arranged at schools in certain selected areas with a view to determining the effect on children's teeth of the presence of fluorine in the public water supply. School children of all ages were inspected, including at least 70 children at each year of age between 5 and 15. By the 30th September, 1951, when the survey closed, 1,371 children had been inspected in schools at the following places :—

Locality of School.	Number of Children Inspected.
Bradwell-on-Sea	47
Burnham-on-Crouch	194
Canewdon	35
Latchingdon	19
Maldon	373
Stansted	172
Sutton	45
Tillingham	71
Waltham Abbey	304
Woodham Mortimer	25
Woodham Walter	32

The public water supplies in the above areas do not all contain the same amounts of fluorine. The highest concentrations are found at Maldon and Burnham-on-Crouch, there is a trace only in Waltham Abbey and none at all in Bradwell, Stansted and Tillingham. The remaining areas consist of villages near Maldon or in the Rochford Rural District. The water supply in some of these villages contains fluorine and in others it does not; moreover the content of fluorine varies in some owing to the fact that water from the South Essex and the Southend Water Companies is used to augment supplies from wells. In some of them there is a difference in fluorine content between the main water and well water and it is not possible to say which is being used by any particular child. Children from these villages may be conveniently grouped together to form a mixed group, of whom some, but not all, come from "fluorine areas".

One of the schools inspected in Maldon was the Grammar School, which draws its pupils not only from Maldon and Burnham-on-Crouch, but from many villages in the vicinity of Maldon. These latter should not be treated as living in a high fluorine area and for the purposes of the following analysis they have been included in the mixed group referred to above.

The children inspected may thus be divided into four groups as follows :—

Group A .. High Fluorine Area—children at Maldon (including Heybridge) and Burnham-on-Crouch, including children from these areas attending Maldon Grammar School.

- Group B .. Mixed Area—children at school in Canewdon, Latchingdon, Sutton, Woodham Mortimer, Woodham Walter and the remainder of the children attending Maldon Grammar School.
- Group C .. Low Fluorine Area—children at school in Waltham Abbey.
- Group D .. Fluorine-free Area—children at school in Bradwell, Stansted and Tillingham.

Since the amount of caries, as measured by the number of teeth decayed, missing or filled, increases with age, it will be necessary to consider children in fairly narrow age ranges separately, otherwise the effect of different age structures in different areas may mask any possible effect from the fluorine content of the water. The following table gives details of the average number of teeth decayed, missing or filled per child inspected in the two age groups 7-9 and 12-15. In the first group, figures for the temporary and the permanent dentition are shown separately.

	7-9			12-15	
	<i>Children Inspected</i>	<i>Average No. of decayed, missing or filled teeth</i>		<i>Children Inspected</i>	<i>Average No. of decayed, missing or filled teeth</i>
		<i>Temporary</i>	<i>Permanent</i>		
GROUP A					
Burnham-on-Crouch ..	60	1.41	0.28	57	1.16
Maldon (Primary) ..	146	0.40	0.16	—	—
Maldon (Gr.S.) ..	—	—	—	87	1.00
Total Group A ..	206	0.69	0.20	144	1.06
GROUP B					
Canewdon	11	3.64	0.36	—	—
Latchingdon	4	0.00	0.25	3	0.33
Sutton	22	1.55	0.50	—	—
Woodham Mortimer ..	8	0.00	0.75	5	2.00
Woodham Walter ..	17	0.00	0.82	—	—
Maldon (Gr.S.) ..	—	—	—	51	1.80
Total Group B ..	62	1.19	0.58	59	1.75
GROUP C					
Waltham Abbey ..	67	2.72	0.51	200	2.32
GROUP D					
Bradwell	19	4.84	0.58	9	2.56
Stansted	80	4.40	0.75	—	—
Tillingham	27	3.89	0.37	15	3.07
Total Group D ..	126	4.36	0.64	24	2.87

Comparing Group A with Group C we see that children at both Burnham-on-Crouch and Maldon had a smaller average number of decayed, missing or filled teeth

than children at Waltham Abbey for each age group, and comparing Group D with Group C the children in each of the villages in Group D had a larger average number of decayed, missing or filled teeth than those at Waltham Abbey.

Owing to small numbers, no consistent differences can be seen when comparing children from schools included in Group B with those in other groups, but the group as a whole, like Group C, is intermediate between Groups A and D in both age groups.

Similar results are found from a study of other age groups. The figures for the 10-11 age group are :—

	Children Inspected.	Average number of decayed, missing or filled teeth (permanent)
Group A—High Fluorine Area ..	55	0.65
Group B—Mixed Area ..	63	0.92
Group C—Low Fluorine Area ..	37	1.32
Group D—Fluorine-free Area ..	42	1.36

No children of 5 or 6 were inspected in several areas, but the results from those who were inspected are in keeping with the other results and are as follows :—

	Children Inspected.	Average number of decayed, missing or filled teeth (temporary).
Group A—Burnham-on-Crouch only	56	1.05
Group B—Canewdon and Sutton only	36	1.72
Group D—All fluorine free areas	98	3.38

There thus appears to be consistent differences at all ages between Groups A and D with Groups B and C intermediate. Before assuming that this is due to the fluorine content of the water it is necessary to take into account a number of other factors.

Although children in Group C have at each age a smaller average number of decayed, missing or filled teeth than those in Group D and the difference for the temporary dentition is large and most unlikely to be due to chance, the differences for the permanent dentition are not large enough to be statistically significant in any of the age groups nor at all ages combined. The value of the trace of fluorine in the water at Waltham Abbey in checking caries must therefore remain in some doubt. Also in comparing Groups C and D we are comparing a semi-industrial area with three villages in highly rural surroundings and there may well be environmental factors either causing the observed differences or masking real differences caused by fluorine.

Comparing Groups B and D, the differences in both age groups in the case of temporary teeth and for those over 9 in the case of permanent teeth are large enough to rule out chance as the responsible factor. Environmental conditions in Bradwell, Stansted and Tillingham are likely to be similar to those in the villages included in Group B. There may be a social class effect in the age group 12-15, since most of the children in Group B of this age were pupils at Maldon Grammar School. The difference is largest in this age group but it seems reasonable to ascribe the smaller amount of caries in Group B when compared with Group D to the fact that a proportion of children in Group B drink water containing fluorine.

The difference between Group A and each of the other Groups is highly significant in each age group for both temporary and permanent teeth. There might be a social class difference at the higher ages, although nearly 40 per cent. of the children in the 12-15 age group were at school in Burnham-on-Crouch and not at a Grammar School, but this could not reasonably be adduced for the differences at the younger ages. It is not entirely satisfactory to compare small towns with villages, but it seems very probable that the differences are due mainly to the fluorine content of the water at Maldon and Burnham-on-Crouch. There is almost certainly a higher proportion of children drinking fluorised water in this group than in the others, and this may account for the differences. On the other hand, the principal factor may be the higher fluorine content.

When the age groups are broken down into single ages, a fairly steady rise with age in the average number of permanent teeth decayed, missing or filled can be seen for each Group. On the diagram on page 118 the average number of decayed, missing or filled teeth is plotted against age for each Group. The points for each Group may be seen to lie very approximately on a straight line. The straight lines which fit the observations best can be calculated and they are also shown on the diagram. The points on these lines may be thought of as giving for any age the average number of decayed, missing or filled teeth in a very large group of children from the areas in question, the actual points do not lie exactly on these lines as they depend on a relatively small number of children, the largest divergencies depending on very small groups of children. One alteration has been used in the Groups used previously; Group C now refers to the boys at Waltham Abbey, the girls being excluded as they were all over 11 and had a rather higher caries rate than the boys. Their inclusion would bias the result.

The diagram shows that at the age of 7 there is very little difference between the four Groups, but as the children get older their caries incidence differs more and more; represented by the different slopes of the lines. These slopes give the average increase in the number of teeth decayed, missing or filled per year of age and are as follows:—

A—High Fluorine Area	..	..	..	0.16
B—Mixed Area	..	..	..	0.26
C—Low Fluorine Area (boys only)	..	..	..	0.31
D—Fluorine-free Area	..	..	..	0.46

and the average number of teeth affected by the time the ages of 10 and 14 are reached are:—

	10	14
A—High Fluorine Area	0.6	1.2
B—Mixed Area	0.9	2.0
C—Low Fluorine Area (boys only)	1.2	2.4
D—Fluorine-free Area	1.5	3.3

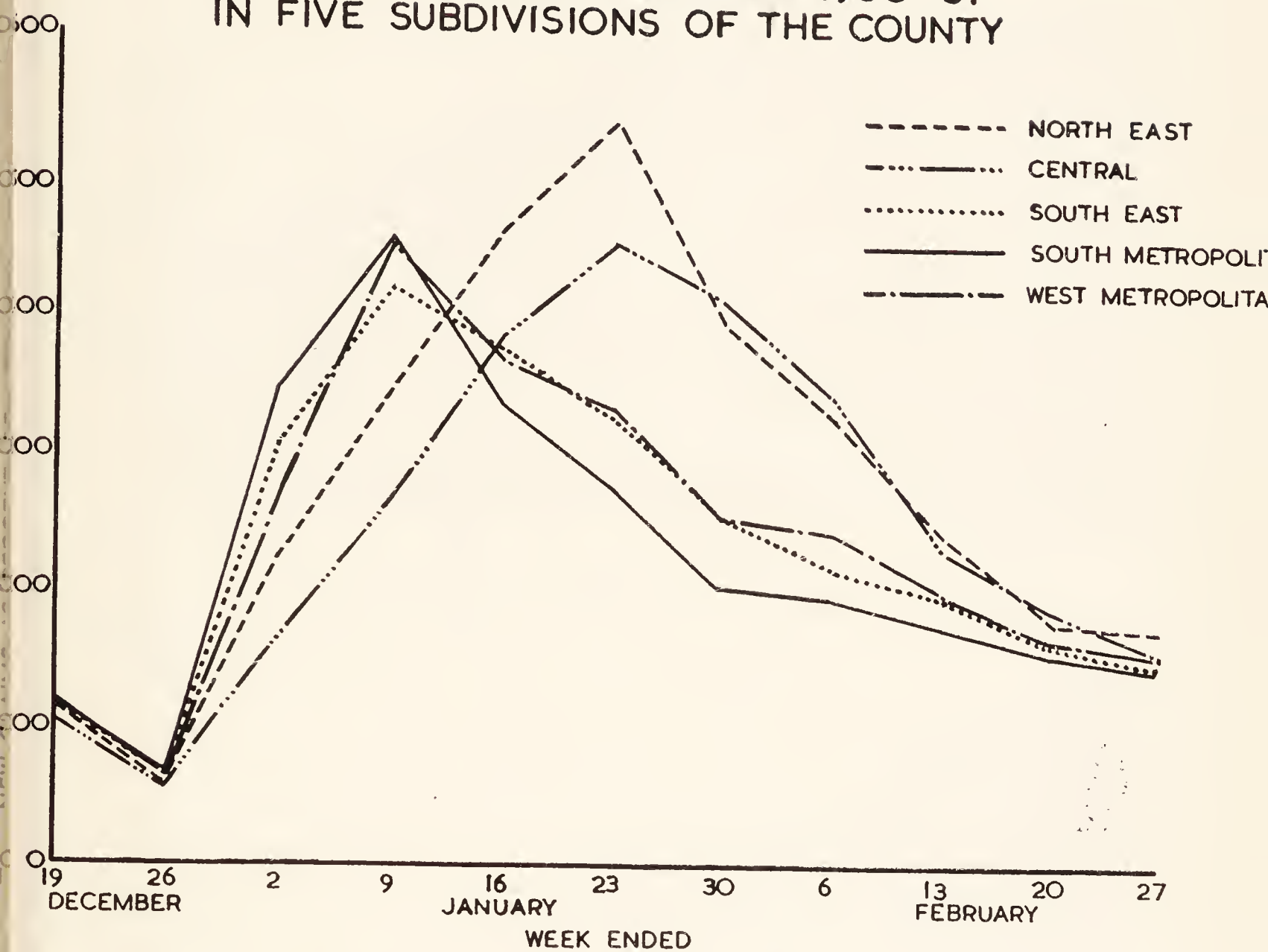
By the age of 14 children in Group A have only the same amount of caries as children of 10 years of age in Group C and less than children of 10 in Group D. This may also be expressed by saying that Group A has an advantage of four years over Group C and one of nearly five years over Group D. If the linear relationship continued to hold at higher ages, the advantage of Group A over Group D would be ten years by

the age of 22. This may be compared with a similar finding in a report entitled "Incidence of Dental Caries in Adults and Young Children in three high and three low fluoride areas in England" by J. R. Forrest, C. J. Parfitt and E. R. Bransby in the Monthly Bulletin of the Ministry of Health for May, 1951. They found that there was, on average, a ten-year difference in caries incidence between expectant and nursing mothers of 20 to 40 years of age attending ante-natal clinics and infant welfare clinics in the selected high and low fluoride areas.

These results cannot be said to prove conclusively that the presence of fluoride in the water supplies in some parts of Essex is having a beneficial effect by checking dental caries but they are certainly most easily explained on that hypothesis. The fact that the same results are found for children of different ages and in respect of temporary as well as permanent teeth is very striking and shows that there is some factor, independent of age, which acts with different force in the four groups of areas. Environmental and economic factors might act in this way but the differences are not consistent with any reasonable explanation along these lines. /

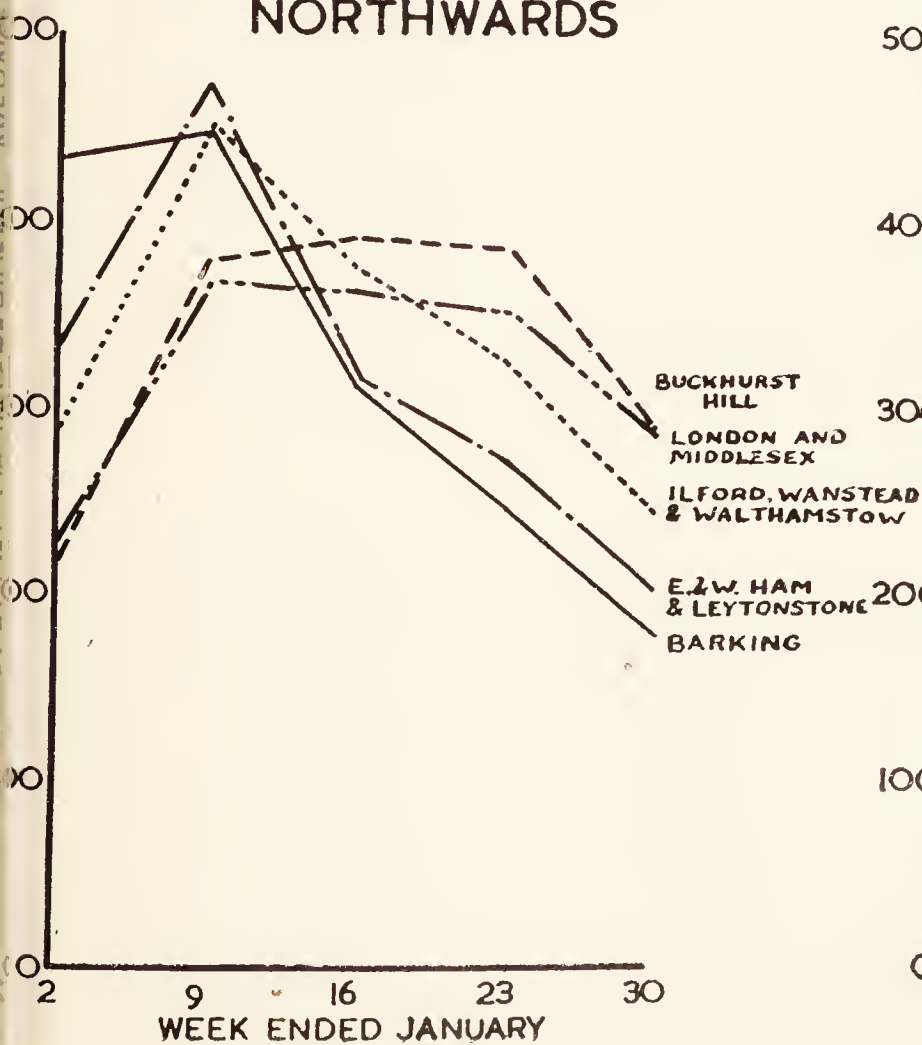
The most conclusive result is the contrast between the dental state of the children living in Maldon and Burnham-on-Crouch and those living elsewhere. In these towns there is an exceptionally high concentration of fluoride in the water and this cannot probably be accepted as the reason for the low caries rate there, but this survey has not shown how much fluoride is needed to produce these beneficial effects. If it were certain that all the children in each village were consuming water with a known concentration of fluoride some light might be thrown on this problem, but this is not the case.

SICKNESS IN ESSEX—WINTER 1950-51 IN FIVE SUBDIVISIONS OF THE COUNTY

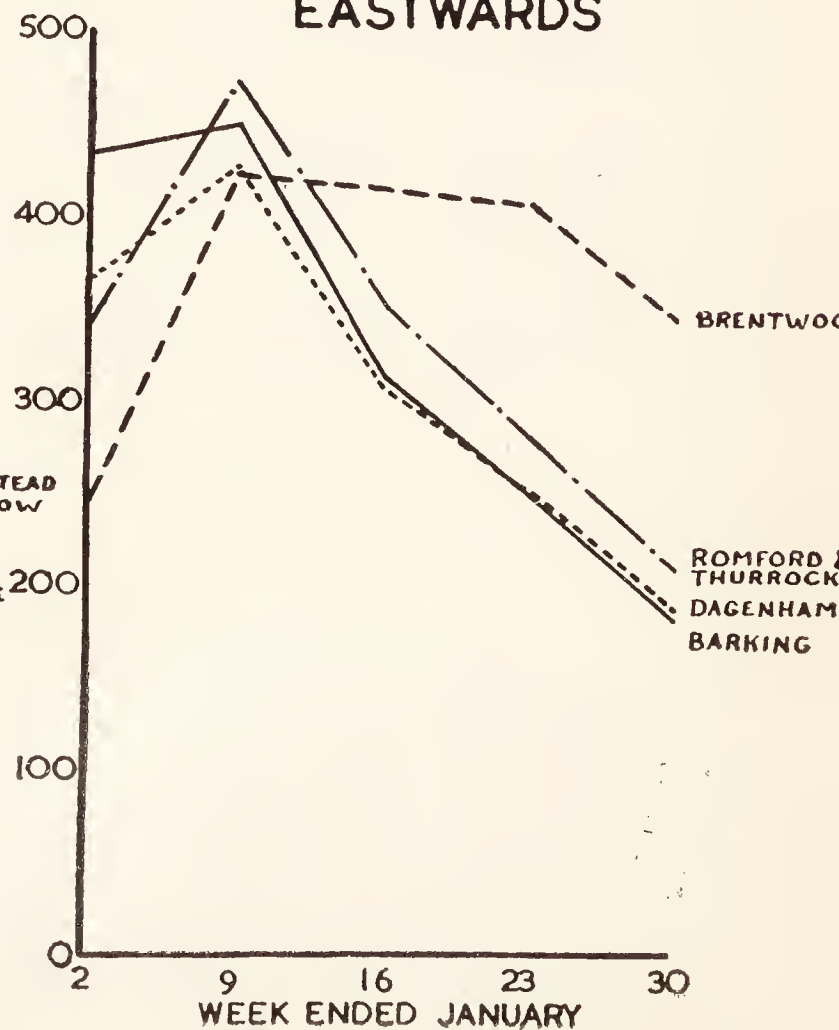


THE SPREAD FROM BARKING

NORTHWARDS



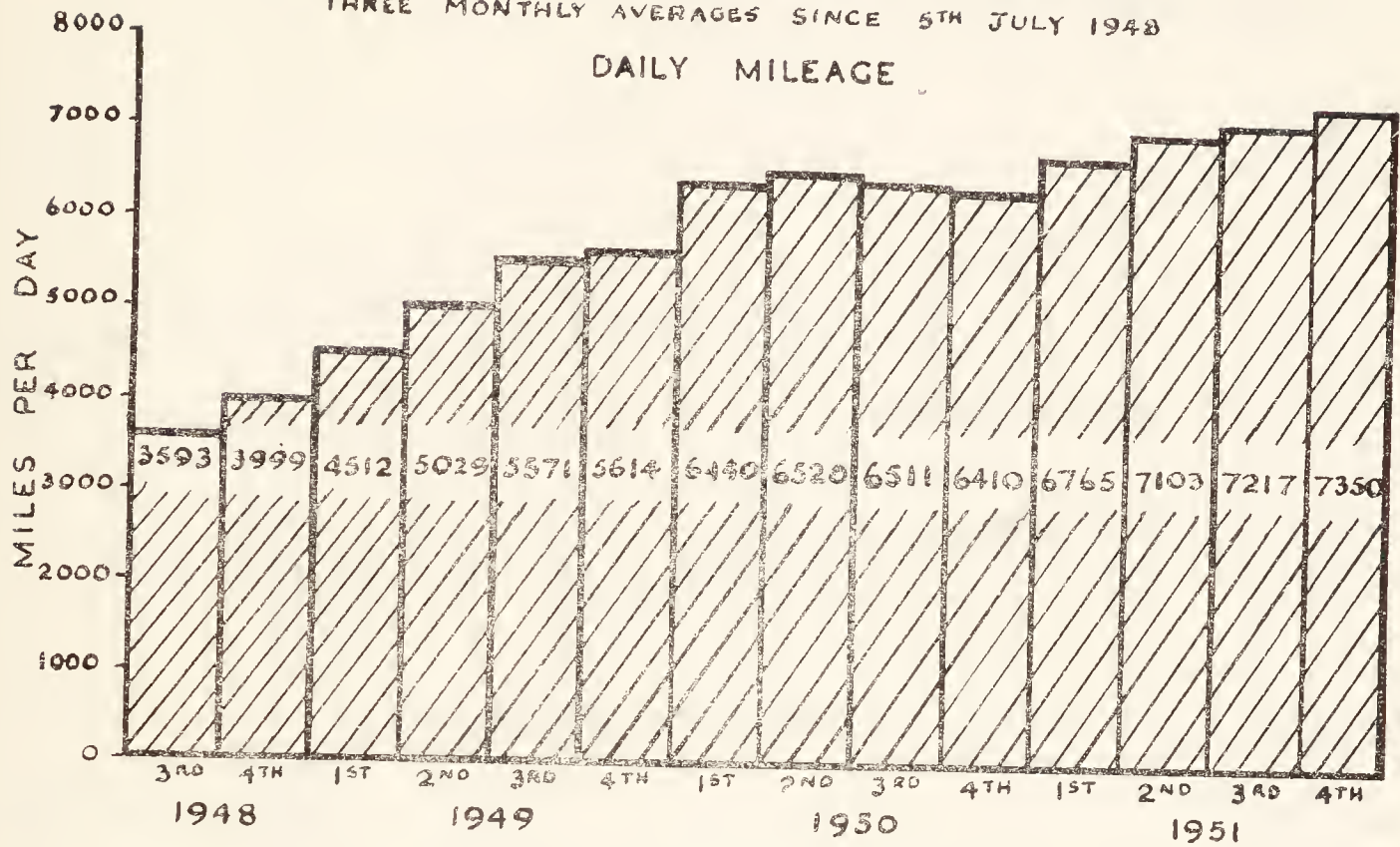
EASTWARDS



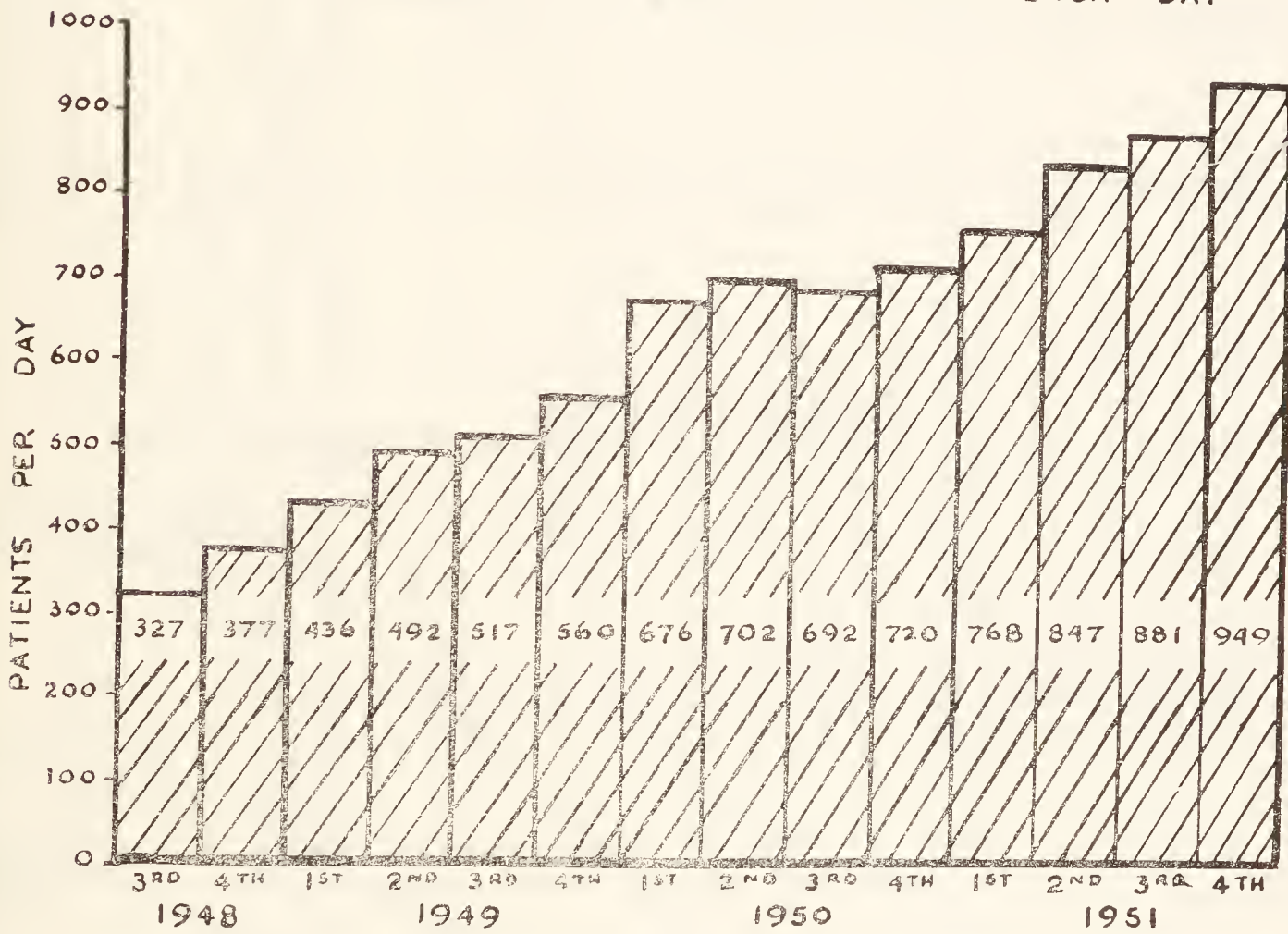
COUNTY AMBULANCE SERVICE

THREE MONTHLY AVERAGES SINCE 5TH JULY 1948

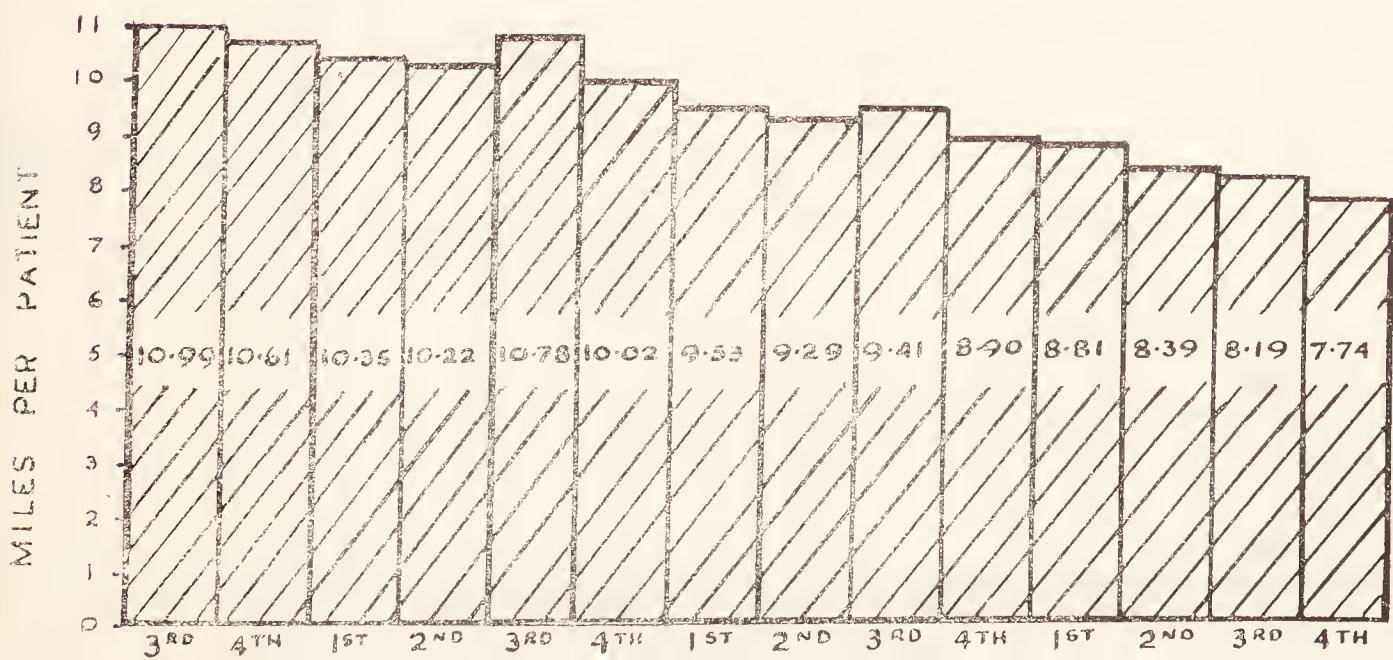
DAILY MILEAGE



NUMBER OF PATIENTS CONVEYED EACH DAY

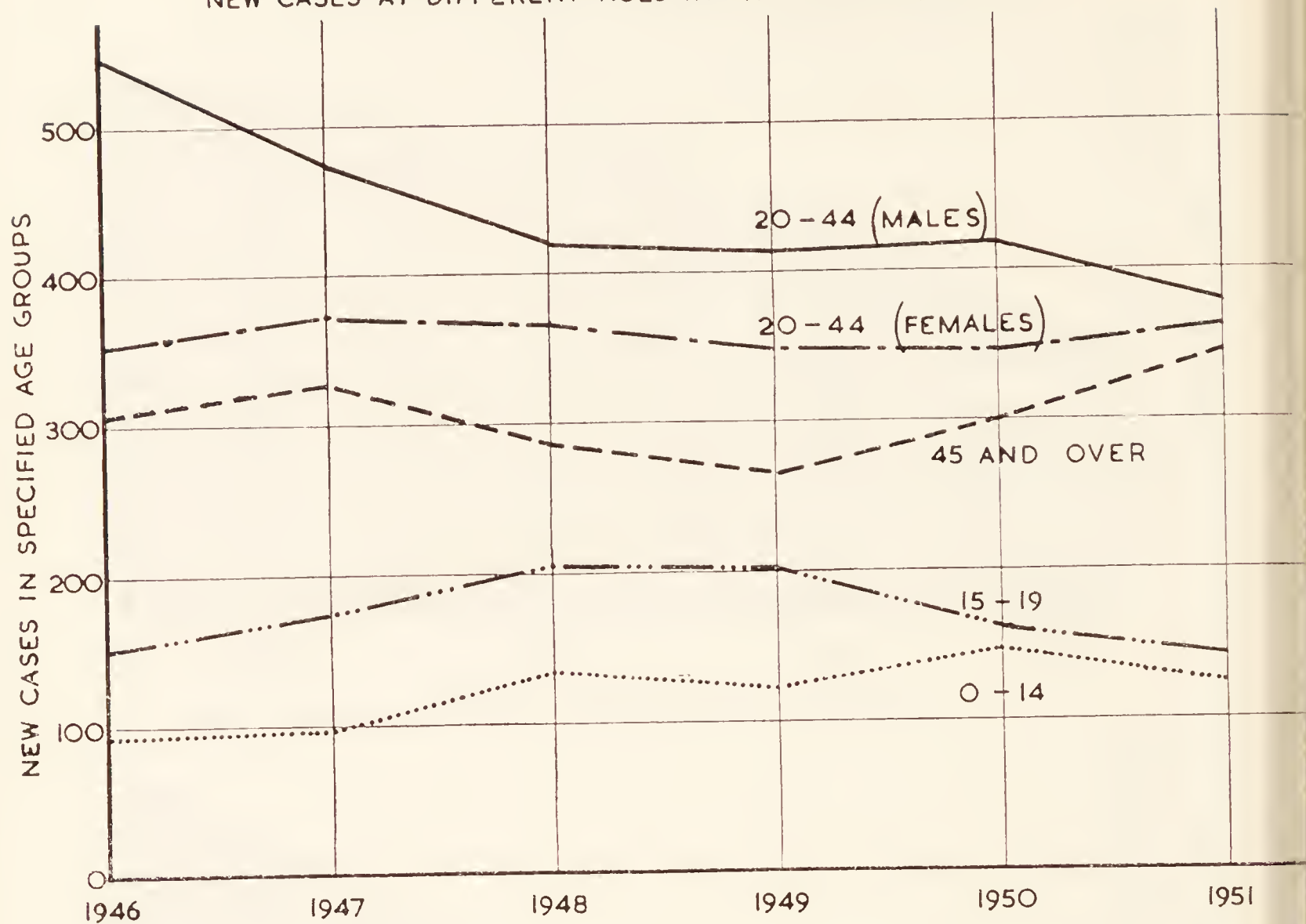


MILEAGE PER PATIENT



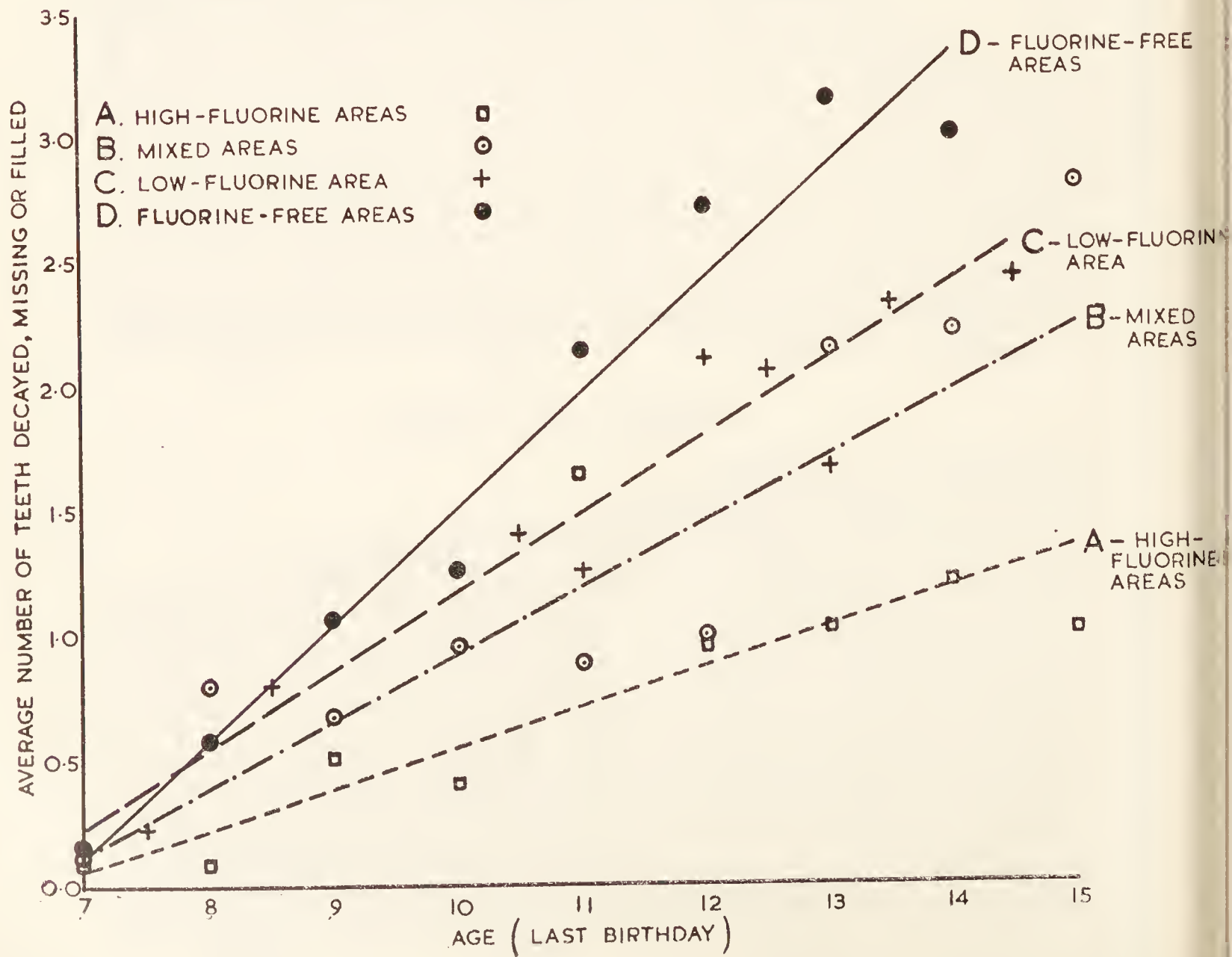
RESPIRATORY TUBERCULOSIS

NEW CASES AT DIFFERENT AGES IN THE YEARS 1946-1951



DENTAL CARIES

IN AREAS WITH DIFFERENT CONCENTRATIONS OF FLUORINE IN THEIR WATER SUPPLY



VACCINATION

PRIMARY VACCINATIONS OF CHILDREN UNDER 14 YEARS OF AGE
AS A PERCENTAGE OF THE NUMBER OF BIRTHS: 1937-1951

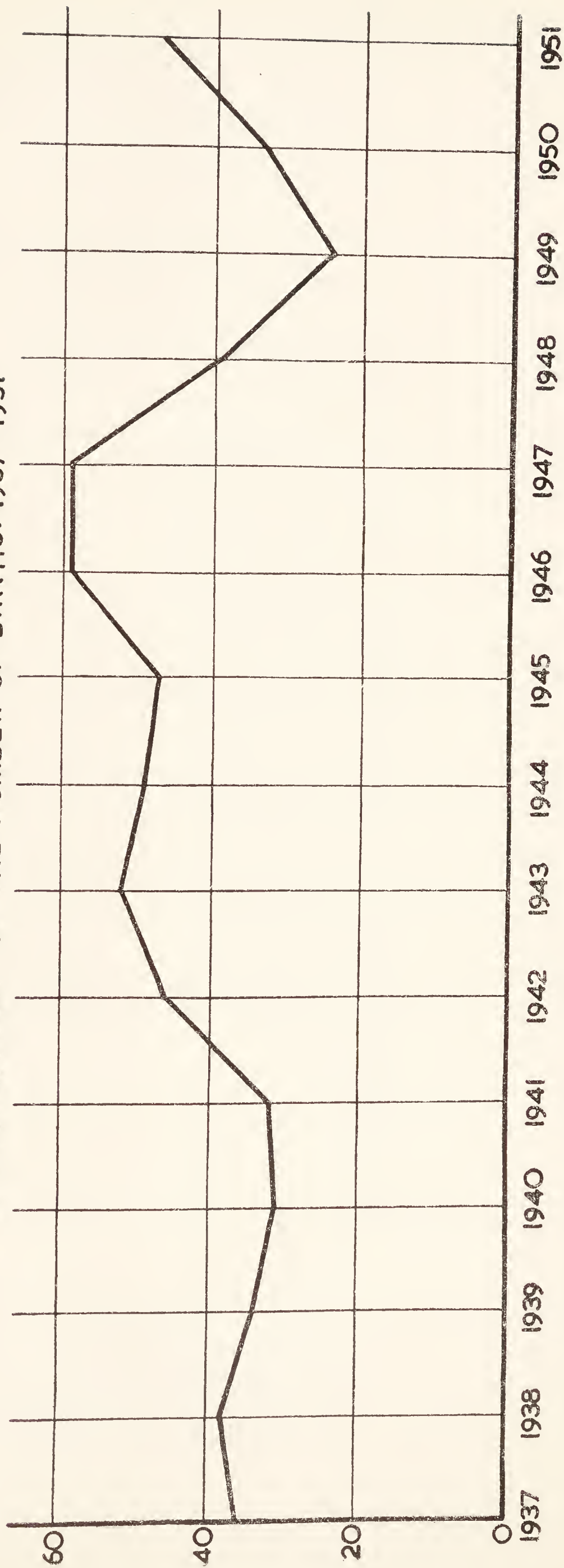


TABLE I

BIRTHS, DEATHS, ANNUAL RATES, &c., 1951

Health Area and County District		Census, 1951 (Preliminary)		Estimated Population	Live Births		Still-births		Deaths at all Ages		Infant Deaths	
		Area	Population		No.	Rate*	No.	Rate†	No.	Rate*	No.	Rate‡
ADMINISTRATIVE COUNTY		950,463	1,590,884	1,000,900	23,407	14.6	515	21.5	17,028	10.6	507	21.7
BOROUGH AND URBAN DISTRICTS		250,982	1,371,916	1,373,600	19,083	14.5	457	22.4	14,214	10.3	449	22.5
RURAL DISTRICTS		702,481	227,968	227,300	3,424	15.1	58	16.7	2,814	12.4	58	16.9
1. NORTH-EAST ESSEX		243,651	184,023	187,714	2,528	13.5	73	28.1	2,348	12.5	48	19.0
Colchester B.		12,011	57,436	60,370	843	13.9	26	30	619	10.2	24	28
Harwich B.		1,512	13,488	14,300	217	15.1	12	52	144	10.0	5	23
Brightlingsea U.		2,852	4,501	4,534	56	12.4	1	18	84	18.5	1	18
Clacton-on-Sea U.		6,470	24,063	23,980	283	11.8	11	37	372	15.5	6	21
Frinton and Walton U.		6,293	8,448	8,136	84	10.3	6	67	128	15.7	3	36
Halstead U.		1,176	3,995	6,083	85	14.5	1	11	77	12.7	2	23
West Mersea U.		3,171	3,001	2,991	38	11.7	1	28	37	12.4	—	—
Wivenhoe U.		1,463	2,381	2,400	44	18.3	—	—	50	20.8	1	23
Halstead R.		76,093	17,039	17,060	226	13.2	4	17	219	12.8	2	9
Lexden and Winstree R.		66,096	22,653	22,740	297	13.1	9	29	312	13.7	2	7
Tendring R.		65,884	25,016	24,830	355	14.3	2	6	306	12.3	2	6
2. MID-ESSEX		459,453	208,100	207,484	3,185	15.4	55	17.0	2,478	11.9	63	19.8
Chelmsford B.		4,772	37,888	37,600	567	15.0	9	16	388	10.3	16	28
Malden B.		4,800	9,721	9,654	152	15.7	4	26	187	14.2	3	20
Saffron Walden B.		7,502	6,825	7,186	105	14.6	4	37	92	12.8	1	10
Barnham and Bocking U.		6,812	17,480	17,520	240	13.7	6	24	226	12.9	3	12
Witham U.		5,352	3,962	3,876	48	12.4	1	20	54	13.9	—	—
Bramtree R.		7,329	8,598	8,548	124	14.5	2	16	76	8.9	1	8
Chelmsford R.		35,556	18,773	18,140	311	17.1	1	3	253	13.9	1	3
Dunmow R.		86,506	39,258	39,120	589	15.1	11	18	413	10.6	16	27
Malden R.		72,487	18,214	18,730	297	15.9	4	13	217	11.6	7	24
Ongar R.		78,507	14,962	14,840	253	17.0	1	4	215	14.5	3	12
Saffron Walden R.		47,236	14,862	14,640	239	16.3	6	24	164	11.2	7	29
3. SOUTH-EAST ESSEX		78,585	17,566	17,540	260	14.8	6	23	243	13.9	5	19
Bentley U.		79,658	103,488	102,640	1,517	14.8	39	25.1	1,432	14.0	31	20.4
Billerica U.		6,361	19,881	19,760	239	12.1	6	24	303	15.3	7	29
Canvey Island U.		27,139	43,852	43,500	702	16.1	21	20	614	14.1	16	23
Rayleigh U.		4,351	11,255	11,050	206	18.6	1	5	157	14.2	3	15
Roehampton R.		5,727	9,368	9,320	129	13.8	3	23	131	14.1	—	—
4. SOUTH ESSEX		36,080	19,012	19,010	241	12.7	8	32	227	11.9	5	21
Brentwood U.		78,559	215,660	216,500	3,398	15.7	72	20.7	2,017	9.3	89	26.2
Homchurch U.		18,269	29,898	30,380	421	13.9	7	16	304	10.0	14	33
Thurrock U.		19,768	104,128	103,800	1,544	14.9	32	20	926	8.9	26	17
5. FOREST		40,552	81,634	82,320	1,433	17.4	33	23	787	9.6	49	34
Chingford B.		62,978	196,869	199,072	2,838	14.3	63	21.7	1,916	9.6	50	17.6
Wanstead and Woodford B.		2,868	48,330	48,230	590	12.2	9	15	423	8.8	14	24
Chigwell U.		3,842	61,620	61,850	768	12.4	21	27	638	11.1	11	14
Epping U.		8,971	51,775	53,160	893	16.8	20	22	391	7.4	14	16
Waltham Holy Cross U.		1,488	6,934	6,872	102	14.8	8	29	77	11.2	2	20
Epping R.		10,958	8,197	8,210	129	15.7	4	30	92	11.2	1	8
6. ROMFORD		34,851	20,013	20,650	356	17.2	6	17	245	11.9	8	22
7. BARKING		9,342	87,991	89,340	1,726	19.3	38	21.5	760	8.5	42	24.3
8. DAGENHAM		3,877	78,197	77,550	1,162	15.0	20	16.9	730	9.4	18	15.5
9. ILFORD		6,554	114,588	113,400	1,729	15.2	26	14.8	841	7.4	52	30.1
10. LEYTON		8,425	184,707	181,600	2,376	13.1	60	24.6	1,835	10.1	50	21
11. WALTHAMSTOW		2,594	105,183	104,700	1,311	12.5	31	23.1	1,362	13.0	27	20.6
per 1,000 estimated population :		4,342	121,069	120,900	1,637	13.5	38	22.7	1,309	10.8	37	22.6

*per 1,000 estimated population;

†per 1,000 total births;

‡per 1,000 live births.

TABLE II

CAUSES OF DEATH BY AGE, 1951

	Males									Females								
	0-	1-	5-	15-	25-	45-	65-	75-	Total	0-	1-	5-	15-	25-	45-	65-	75-	Total
1. Tuberculosis—respiratory	1	1	1	4	49	117	43	10	226	1	—	—	13	48	30	13	5	110
2. Tuberculosis—other	—	9	2	3	11	3	2	1	31	1	6	—	4	6	7	2	—	26
3. Syphilitic disease	—	—	—	—	2	17	21	10	50	—	—	—	—	1	6	6	7	20
4. Diphtheria	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	0
5. Whooping cough	2	2	—	—	—	—	—	—	4	2	3	1	1	—	—	—	—	7
6. Meningococcal infections	3	3	—	1	—	—	1	—	8	2	1	1	1	—	—	—	—	5
7. Acute poliomyelitis	—	1	—	1	2	—	—	—	4	—	—	—	1	—	—	—	—	1
8. Measles	1	4	—	1	—	—	—	—	6	1	2	—	—	—	—	—	—	3
9. Other infective and parasitic diseases	2	1	—	3	3	5	1	4	19	—	—	—	1	3	7	2	4	23
10. Malignant neoplasm, stomach	—	—	—	1	13	122	92	61	289	—	—	—	—	11	48	66	86	212
11. Malignant neoplasm, lung and bronchus	—	—	—	1	23	238	125	31	418	—	—	—	—	7	37	24	17	85
12. Malignant neoplasm, breast	—	—	—	—	—	1	1	—	2	—	—	—	—	32	115	64	60	271
13. Malignant neoplasm, uterus	—	—	—	—	—	—	—	—	0	—	—	—	—	9	63	28	21	121
14. Other malignant and lymphatic neoplasms	—	3	5	7	54	240	255	281	845	—	3	2	6	38	243	212	180	684
15. Leukæmia and aleukæmia	—	5	5	2	6	16	9	4	47	—	6	1	1	5	6	6	4	29
16. Diabetes	—	—	1	1	2	9	16	7	36	—	—	1	3	4	17	20	28	73
17. Vascular lesions of nervous system	—	—	—	1	6	156	251	444	858	—	—	—	1	12	207	351	613	1184
18. Coronary disease, angina	—	—	—	1	40	458	440	338	1277	—	—	—	—	4	128	257	285	674
19. Hypertension with heart disease	—	—	—	1	4	60	97	104	266	—	—	1	—	3	51	74	136	265
20. Other heart disease	—	—	1	4	26	147	318	814	1310	—	—	—	5	38	184	370	1179	1776
21. Other circulatory disease	—	—	—	1	10	49	73	111	244	—	—	—	—	7	38	65	153	263
22. Influenza	1	3	1	—	6	34	61	65	171	—	1	2	1	4	17	34	99	158
23. Pneumonia	37	7	3	3	7	81	106	187	431	19	3	2	1	7	37	93	265	427
24. Bronchitis	5	6	—	1	7	198	224	272	713	4	2	1	—	9	49	117	260	442
25. Other diseases of respiratory system	2	2	1	—	4	35	23	12	79	2	—	1	—	4	15	9	15	46
26. Ulcer of stomach and duodenum	—	—	—	—	10	64	39	32	145	—	—	—	—	3	7	20	21	51
27. Gastritis, enteritis and diarrhoea	6	3	—	2	1	7	4	6	29	6	2	—	2	7	9	9	17	52
28. Nephritis and nephrosis	1	3	1	3	14	26	19	15	82	2	1	1	2	12	17	13	19	67
29. Hyperplasia of prostate	—	—	—	—	—	7	43	94	144	—	—	—	—	—	—	—	—	0
30. Pregnancy, childbirth, abortion	—	—	—	—	—	—	—	—	0	—	—	—	1	12	—	—	—	13
31. Congenital malformations	37	9	7	3	6	12	3	1	78	26	7	1	3	10	10	7	5	69
32. Other defined and ill-defined diseases	192	9	16	10	43	154	120	190	734	131	13	17	13	42	154	127	265	762
33. Motor vehicle accidents	—	4	7	28	29	23	12	12	115	—	1	3	8	6	8	6	7	39
34. All other accidents	11	11	11	11	38	27	15	27	151	8	2	3	2	2	16	13	54	100
35. Suicide	—	—	—	1	34	31	17	9	92	—	—	—	3	16	33	7	1	60
36. Homicide and operations of war	—	—	1	—	1	2	—	—	4	—	—	—	2	—	—	—	—	2
All Causes	301	86	63	95	451	2339	2431	3142	8908	206	56	40	76	362	1559	2015	3806	8120

TABLE III.—CAUSES OF DEATH, 1951.

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Health Area and County District	Tuberculosis, respiratory	Tuberculosis, other	Syphilitic disease	Diphtheria	Whooping cough	Meningococcal infections	Acute poliomyelitis	Measles	Other infective and parasitic disease	Malignant neoplasm, stomach	Malignant neoplasm, lung, bronchus	Malignant neoplasm, breast	Malignant neoplasm, uterus	Other malignant and lymphatic neoplasms	Leukaemia, leukaemia	Diabetes	Vascular lesions of nervous system	Coronary disease, angina	Hypertension with heart disease	Other heart disease	Other circulatory disease	Influenza	Pneumonia	Bronchitis	Other diseases of respiratory system	Ulcer of stomach and duodenum	Gastritis, enteritis and diarrhoea	Nephritis and nephrosis	Hyperplasia of prostate	Pregnancy, childbirth, abortion	Congenital malformations	Other defined and ill-defined diseases	Motor vehicle accidents	All other accidents	Suicide	Homicide and operations of war	All causes	
ADMINISTRATIVE COUNTY	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)		
BOROUGHS AND URBAN DISTRICTS	312	48	63	—	9	12	5	9	34	418	447	273	121	1,529	76	109	2,042	1,951	531	3,086	426	329	858	1,155	125	196	81	149	144	11	147	1,496	154	251	152	6	17,028	
RURAL DISTRICTS	24	9	7	—	2	1	—	—	8	83	56	41	97	242	14	89	394	312	460	2,517	59	535	79	61	712	146	109	16	71	10	15	128	19	116	207	123	5	14,214
1. NORTH-EAST ESSEX	32	17	7	—	1	2	1	1	9	65	46	36	24	173	4	18	346	272	59	535	79	61	104	96	18	22	12	22	21	—	13	177	19	36	18	1	2,348	
Colchester B.	8	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	619	
Harwich B.	5	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	144	
Brightlingsea U.	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84	
Clacton-on-Sea U.	5	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	372	
Frinton and Walton U.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	128	
Halstead U.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77	
West Mersea U.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	
Wivenhoe U.	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	
Halstead R.	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	128	
Lexden and Winstree R.	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77	
Tendring R.	4	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	306	
2. MID-ESSEX	26	5	5	—	—	1	—	—	7	66	54	41	20	228	8	10	354	300	68	436	79	63	109	120	19	31	8	19	17	3	24	254	29	48	25	—	2,478	
Chelmsford B.	5	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	388	
Maldon B.	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	137	
Saffron Walden B.	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	92	
Braintree and Bocking U.	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	226	
Burnham-on-Crouch U.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54	
Witham U.	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	76	
Braintree R.	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	253	
Chelmsford R.	4	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	413	
Dunmow R.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	217	
Maldon R.	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	164	
Ongar R.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	243	
Saffron Walden R.	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. SOUTH-EAST ESSEX	28	2	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,432	
Benfleet U.	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	303	
Billerica U.	11	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	614	
Canvey Island U.	4	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	157	
Rayleigh U.	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	131	
Rochford R.	3	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	227	
4. SOUTH ESSEX	38	6	6	—	3	4	—	—	5	66	77	41	11	166	7	15	252	242	55	360	51	30	92	112	11	18	12	25	17	—	26	189	25	36	19	—	2,017	
Brentwood U.	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	304	
Hornchurch U.	21	4	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	926	
Thurrock U.	11	2	5	—	1	3	—	—	2	34	40	20	6	83	4	3	106	102	25	164	20	19	30	69	7	9	1	2	—	4	30	3	4	3	—	—	787	
5. FOREST	33	6	7	—	4	1	1	2	53	53	43	13	188	14	14	217	217	64	296	68	46	93	130	10	28	11	7	26	3	17	176	21	23	26	4	1,916		
Chingford B.	13	1	3	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	423	
Wanstead and Woodford B.	10	3	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	688	
Chigwell U.	7	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	391	
Epping U.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77	
Waltham Holy Cross U.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	92	
Epping R.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	245	
6. ROMFORD	27	5	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7. BARKING	20	2	5	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. DAGENHAM	26	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9. ILFORD	38	3	12	—	2	2	1	2	62	62	32	12	189	10	10	214																						

TABLE IV NOTIFICATIONS OF INFECTIOUS DISEASE—1951

Health Area and County District		Scarlet Fever	Whooping Cough	Diphtheria	Measles	Acute Pneumonia	Meningococcal Infection	Acute Poliomyelitis (Paralytic)	Acute Poliomyelitis (Non-Paralytic)	Acute Encephalitis (Infective)	Acute Encephalitis (Post Infectious)	Dysentery	Ophthalmia Neonatorum	Puerperal Pyrexia	Smallpox	Paratyphoid Fevers	Enteric or Typhoid Fever	Erysipelas	Malaria	Fo d P ison i g	Others*	Total
ADMINISTRATIVE COUNTY ..		1,800	8,096	4	27,347	1,502	38	31	29	2	1	989	19	302	1	21	5	233	11	240	523	41,194
BOROUGH AND URBAN DISTRICTS ..		1,606	7,072	3	23,759	1,319	35	29	27	2	1	945	18	248	1	17	5	217	11	230	488	36,033
RURAL DISTRICTS ..		194	1,024	1	3,588	183	3	2	2	—	—	44	1	54	—	4	—	16	—	10	35	5,161
1.	NORTH-EAST ESSEX ..	198	851	1	2,334	126	3	3	—	2	—	127	3	27	—	2	—	9	6	5	244	3,941
	Colchester B. ..	81	353	1	694	34	2	1	—	—	—	106	—	20	—	—	—	4	5	4	7	1,312
	Harwich B. ..	4	24	—	91	3	1	1	—	—	—	2	—	1	—	—	—	—	—	—	7	134
	Brightlingsea U. ..	11	13	—	223	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	254
	Clacton-on-Sea U. ..	18	22	—	412	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	176	629
	Frinton and Walton U. ..	10	22	—	64	15	—	—	—	—	—	1	—	2	—	—	—	—	—	—	10	124
	Halstead U. ..	3	35	—	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	63
	West Mersea U. ..	3	4	—	69	5	—	—	—	—	—	—	2	—	—	—	—	—	1	—	—	84
	Wivenhoe U. ..	8	3	—	25	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	41
	Halstead R. ..	12	111	—	79	3	—	1	—	—	—	2	1	—	—	—	—	1	—	1	1	212
	Lexden and Winstree R. ..	28	115	—	443	33	—	—	—	—	—	9	—	3	—	—	2	—	—	—	5	638
	Tendring R. ..	20	149	—	211	29	—	—	—	—	—	7	—	1	—	2	—	2	—	—	29	450
2.	MID-ESSEX ..	149	867	—	3,477	161	2	3	1	—	—	39	1	20	—	3	—	16	—	23	68	4,830
	Chelmsford B. ..	22	89	—	401	14	1	2	—	—	—	2	1	12	—	—	—	4	—	—	3	551
	Maldon B. ..	15	75	—	179	31	—	—	—	—	—	—	—	4	—	—	—	1	—	9	65	379
	Saffron Walden B. ..	4	—	—	120	1	—	—	—	—	—	—	—	—	—	1	—	2	—	—	—	123
	Braintree and Bocking U. ..	3	104	—	609	3	—	—	—	—	—	5	—	—	—	1	—	1	—	10	—	736
	Burnham-on-Crouch U. ..	7	5	—	163	16	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	193
	Witham U. ..	4	24	—	46	5	—	—	—	—	—	7	—	—	—	—	—	—	—	—	—	86
	Braintree R. ..	17	183	—	134	4	—	—	—	—	—	3	—	1	—	—	—	1	—	1	—	344
	Chelmsford R. ..	42	151	—	571	28	—	1	—	—	—	9	—	2	—	1	—	3	—	—	—	808
	Dunmow R. ..	9	82	—	329	15	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	437
	Maldon R. ..	13	85	—	424	16	—	—	—	—	—	2	—	—	—	—	—	1	—	1	—	542
	Ongar R. ..	3	23	—	215	6	—	—	—	—	—	7	—	—	—	—	—	—	—	2	—	256
	Saffron Walden R. ..	10	46	—	286	22	1	—	—	—	—	4	—	—	—	—	—	1	—	—	—	370
3.	SOUTH-EAST ESSEX ..	88	476	—	2,299	58	5	2	1	—	—	55	—	49	1	—	—	14	—	6	30	3,084
	Benfleet U. ..	7	77	—	577	4	—	1	—	—	—	—	—	—	—	—	—	4	—	—	30	700
	Billericay U. ..	56	333	—	985	36	2	—	1	—	—	55	—	3	1	—	—	2	—	3	—	1,477
	Canvey Island U. ..	2	13	—	98	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	115
	Rayleigh U. ..	1	35	—	251	7	1	—	—	—	—	—	—	1	—	—	—	5	—	—	—	301
	Rochford R. ..	22	18	—	388	10	2	—	—	—	—	—	—	45	—	—	—	3	—	3	—	491
4.	SOUTH ESSEX ..	239	863	—	3,540	140	4	2	6	—	—	40	3	10	—	2	—	24	—	11	148	5,032
	Brentwood U. ..	16	72	—	571	26	2	—	—	—	—	1	—	—	—	—	—	1	—	—	9	698
	Hornchurch U. ..	127	495	—	2,023	67	2	2	6	—	—	13	3	4	—	1	—	16	—	8	37	2,804
	Thurrock U. ..	96	296	—	946	47	—	—	—	—	—	26	—	6	—	1	—	7	—	3	102	1,530
5.	FOREST ..	227	1,390	1	4,473	176	2	4	2	—	—	273	2	44	—	2	—	20	1	36	2	6,655
	Chingford B. ..	81	463	—	940	54	—	—	—	—	—	39	—	1	—	—	—	8	—	3	2	1,591
	Wanstead and Woodford B. ..	51	425	—	1,091	48	—	—	—	—	—	41	1	19	—	—	—	5	—	7	—	1,688
	Chigwell U. ..	67	365	—	1,577	46	—	3	1	—	—	174	1	3	—	1	—	4	1	7	—	2,250
	Epping U. ..	6	26	—	173	4	—	—	—	—	—	15	—	20	—	—	—	—	—	17	—	261
	Waltham Holy Cross U. ..	4	50	—	184	7	2	1	—	—	—	3	—	—	—	—	—	1	—	—	—	252
	Epping R. ..	18	61	1	508	17	—	—	1	—	—	1	—	1	—	1	—	2	—	2	—	613
6.	ROMFORD ..	100	520	—	1,290	69	7	6	6	—	—	37	—	11	—	2	1	14	1	29	—	2,693
7.	BARKING ..	86	276	—	1,713	46	2	3	4	—	—	50	—	10	—	1	—	15	—	13	21	2,240
8.	DAGENHAM ..	151	492	—	1,407	45	3	—	6	—	—	28	5	14	—	2	—	5	1	26	—	2,185
9.	ILFORD ..	278	1,026	1	2,985	225	2	—	1	—	1	125	3	64	—	4	2	31	—	20	10	4,778
10.	LEYTON ..	166	593	1	1,534	372	3	—	—	—	—	56	—	10	—	2	1	52	—	57	—	2,847
11.	WALTHAMSTOW ..	118	742	—	2,295	84	5	8	2	—	—	159	2	43	—	1	1	33	2	14	—	3,509

*Including certain diseases only notifiable in certain parts of the County.

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